ENGINEERING NEWS-RECORD

Traffic control for coral-loaded trucks that sped construction of B-29 bases on Saipan.

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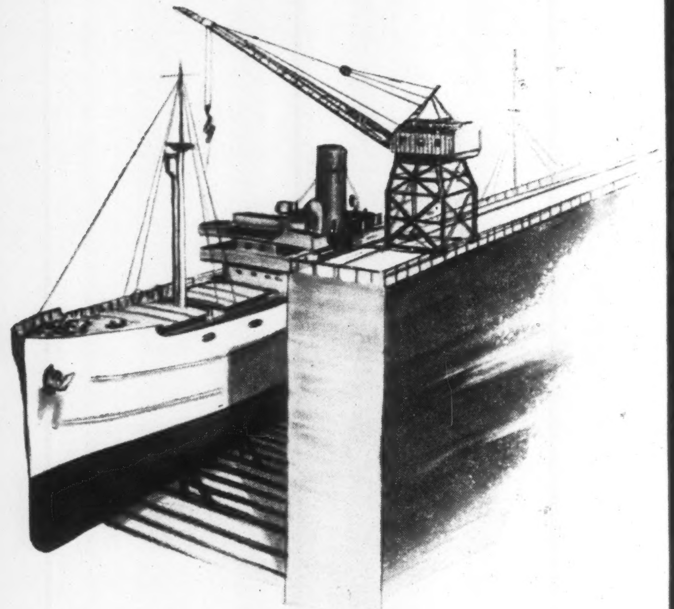
The GAGE *that* GUARDS LIVES *and equipment*



By J. P. Smith, Industrial Engineering Division, General Electric Company

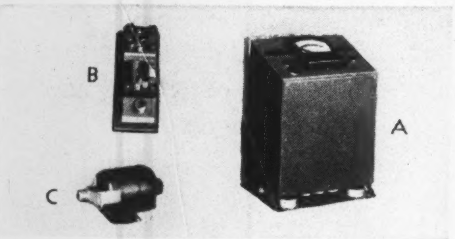
On guard against crippling accidents at many drydocks is a tiny gage no larger than half the size of a cigarette package. This gage protects one of the busiest pieces of equipment on the docks—the revolving-boom-type crane.

EVERY craneman knows the difficulty of determining the weight he is to handle, and the radius at which he can swing the boom. If he is overcautious, he hesitates to handle loads that the crane can safely manage, and thereby slows the work—in this case the servicing of ships. If he becomes overzealous and picks up more than the crane can safely handle, he runs the risk of overturning the crane, ruining material, and losing lives.

The crane-stability gage enters the picture

This gage (components shown in picture) has removed the necessity for guesswork in crane operation. Now, by glancing at an indicating instrument (A) the operator can determine whether he is "safe," or getting "out of bounds." It is possible even to interlock the crane-stability gage with the electric controls of the crane in such a way that the operator will automatically be prevented from lowering the boom or hoisting the load if the gage indicates an overload.

The load causes stretch of one of the crane's structural members to which the magnetic strain gage (B) is attached. This stretch is measured accurately by the gage by the changing of the gage's .005-inch air gap, which in turn causes movement of a pointer over the five-inch scale of the instrument near the operator.



The boom-angle compensator (C), which measures the boom angle, constantly corrects the reading as the radius changes. Thus the operator knows, at any radius, when he is handling his maximum safe load.

What the crane-stability gage does

1. Gives the operator a continuous, accurate indication of crane stability at all times.
2. Prevents unsafe operation by giving an alarm automatically when the load limit is reached. Also, the gage can often be interlocked with the crane controls.
3. Measures crane stability *whether the load is stationary or in motion.*

★

In thus eliminating one of the hazards of crane operation, G.E. has enabled workers in the heavy construction industry to obtain maximum output from expensive equipment, with less danger to life and material. Whenever you have an electrical problem, call on G-E engineers. They will be glad to work with you. ***General Electric Company, Schenectady 5, N. Y.***

★

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The Week In Engineering and Construction

ENGINEERING NEWS-RECORD • JANUARY 4, 1945 • VOLUME 134 • NUMBER 1

N.Y. City asks federal loan for 16 low-rent projects

Housing Authority seeks $132,500,000 for sheltering 19,300 additional low-income families in all five boroughs of the metropolis.

In applying to the Federal Public Housing Authority recently for a loan of $132,500,000, the New York City Housing Authority presented a program for 16 new, low-rent projects to provide public housing for 19,300 families. This augments eleven other projects, plans for which are from 70 to 100 percent completed, which are financed mainly by state loans, and which will accommodate about 17,500 low-income families.

Public housing now available in New York City provides in 14 units for 17,000 families, or about 58,500 persons, and cost $90,500,000 to construct. The 27 additional units contemplated will house, in a three year period following termination of the war, 36,800 families, more than twice as many as were sheltered since the Housing Authority was created ten years ago. Increasing the city's population in subsidized housing by about 126,000, they will bring the total to 184,500 persons at an over-all cost of $260,000,000.

The $132,500,000 program just presented to the FPHA schedules five projects in Manhattan, three in the Bronx, five in Brooklyn, two in Queens and one in Staten Island. Plans for these units will be developed as soon as funds are available. Their location, as well as number of persons to be housed, depends upon the amount of money provided by the federal government.

State housing loan funds are already available to the extent of $115,000,000 for the eleven other projects, construction on which will be ready to begin as soon as structural materials can be obtained.

"New York," commented Edmond B. Butler, chairman of the Housing Authority, "has lost ground during the war in its effort to remove substandard buildings and provide decent homes for worthy families, and it is our hope to be prepared to regain some of this ground as soon as restrictions on civilian construction are lifted.

"We are planning all this new work with the aim of keeping below a rental limit of $7 a room monthly on all projects, with some considerably lower, and hope to get back to the average of $6 a room monthly on Federal loan projects. The cost of land, even in Manhattan slums, is one problem in keeping rentals and subsidies down.

"The $7 limit, however, will be well below the $12.50 monthly rent charge in limited-dividend projects financed by private capital, and leaves a wide gap which will refute any argument of competition with any private housing except the outmoded buildings in the slums. It also leaves a gap which should be a challenge to private enterprise and ingenuity, which will have free rein to meet the in-between need of moderate cost housing."

6TH. SPECIAL U.S.N.
CONSTRUCTION BATTALION
GUADALCANAL

Seabees celebrate three years of "can do"ing

The third anniversary of the organization of the Naval Construction Battalions, now universally known as the Seabees occurred Dec. 28. Today they number 8,500 officers and 234,000 men, drawn from 60 different trades. They have built airfields, docks and camps, from Attu to Anzio, from Normandy to Leyte, and often have helped defend them.

James E. Forrestal, Secretary of the Navy, on the anniversary, sent this congratulatory message to the Seabees all over the world: "On this third birthday of the Seabees I extend my congratulations to an organization which chose for its motto the words 'can do', and then proceeded, by courage, skill and hard work to live up to it."

The illustration above is of a group of Seabees, all from Ventura, Calif., before a signboard erected somewhere in the South Pacific showing a few of the Seabees' early stopping off points on the road to Tokyo.

Engineer achievements told by Gen. Somervell

Lieut. Gen. Brehon Somervell of the Army Service Forces, speaking before the Metropolitan Section (New York) of the A.S.C.E. on Dec. 20, told of the prodigious amount of work done by engineers in this war. While complimenting civilian engineers and contractors on accomplishing $10 billion worth of construction work in continental U. S. since 1940, he asked them to help wherever they could with production to finish the war. The general stated that there is now more than $200,000,000 worth of construction work underway in this country for the Army and that jobs are being let at a rate of $40,000,000 per month, though the Army consistently resists proposals for new construction of any kind.

Engineers now constitute 8.7 percent of the total strength of the Army, 700,000 men of whom 500,000 are now overseas. In 1943 the Engineers spent $1.5 billion of which $200 million was for crawler-type tractors and $400 million for other construction equipment. This year's expenditure will exceed $2 billion and the 1945 budget is now $1.7 billion but may be larger.

Turning to what is being done by the engineers in the battle areas Gen. Somervell told of building airfields in France within a few hours of the start of the invasion and 130 built to date in that country. Some 48 miles of railroad, systematically destroyed by our attack and the retreating Germans, was rebuilt, including seven bridges, and put in service in 48 hours. At Cherbourg, within three months of the time of capture, more than double the maximum peacetime flow of traffic was passing through the port. The Albert Canal, for 100 miles from Antwerp to Liege, has been restored to service by British and American engineers after having 200 bridges and all of the lock gates dumped into the canal by the retreating Germans.

An outstanding accomplishment has been development and use of pipe lines for petroleum products. A line weighing 13 tons to the mile has a capacity of 5,000 bbl. per day. As half of the tonnage requirements of a modern army are petroleum products, use of pipelines for the fluid supplies has greatly reduced the problem of other transport. Gasoline into Burma and China also has been a serious problem and here 4 and 6-in. lines have been laid from Calcutta.

Speaking of the war in the Pacific, Gen. Somervell said the bulldozer has become a major weapon of war. It lands with the first troops and hews out paths for the initial advances. In contrast to a few trails and a small airstrip built by the Japs on Pacific islands our engineer troops, following behind assault waves, build whole ports, roads, airfields and housing. Actually in a few short weeks they transform a jungle island into a first class American base.

• • •

Imperial Valley work set at $16,980,000

President Evan T. Hewes of the Imperial Irrigation District announced at El Centro, Calif., Dec. 14, that the district board of directors had unanimously approved a postwar construction program involving expenditure of $16.-980.000.

A list of the projects was sent to the state senate committee now preparing a report of statewide projects for presentation at the next session of the California legislature. They include development of 10,000 acres on East Mesa for war veterans, flood control and protective channelization of the Alamo River.

Other projects to be financed exclusively by the district include a 33,000-kw. hydro plant on the All-American Canal to cost $5.500,000; additions to the present power system; extension of the drainage system; maintenance work on canals and structures; employees housing, and other improvements.

• • •

Extensive Houston work authorized by voters

On Dec. 19, the $5,000,000 Navigation District bond issue at Houston, Tex., passed by a majority of five to one.

Money from this bond issue will be used by the Navigation District to help build two tunnels under the Houston Ship Channel, to purchase Houston's port facilities, and to enlarge and rehabilitate those port facilities.

Schuykill River towns get pollution notices

The Pennsylvania State Sanitary Water Board has ordered 60 additional Schuykill River communities to make plans immediately for sewage treatment works, raising to nearly 200 the communities receiving anti-pollution notices.

The municipalities have been told to have their own engineering departments begin to draw up the plans at once or to obtain such private engineering services as are necessary.

Borough Manager Norman G. Young of Phoenixville, who heads a permanent organization of ten river communities, said the group will seek to have the state board include every river town north of Reading in its demand for complete sewage treatment.

The state board approved plans for the construction of waste treatment works at three industrial plants and the applications of four municipalities for sewage treatment installation.

The city of Bethlehem reported that work has started on assembling field data for plans to install sewage interceptors on the Lehigh River. Morrisville borough authorities have employed engineers to prepare plans for sewage treatment works on the Delaware River.

• • •

U. S. builds Canada's largest airport

Carved out of forest and farmland at Namao, 10 miles north of Edmonton, Alta., a $7.000,000 airport described by officials of the Northwest Division, United States Engineers, as the largest in area in North America is in operation.

The field is used by the United States Army Air Forces. It has two all-concrete runways about 7,000 ft. long, and the airfield itself covers more than 2,500 acres of ground. The airport will be acquired by the Canadian government when the U. S. releases it.

The Wisconsin State Highway commission has set up stations along some of the principal highways, where drivers are stopped for questioning. Much information has been obtained that will be valuable in postwar construction plans.

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Federal aid to be asked for postwar planning

Among the proposals expected to get early consideration by the new Congress is that of federal aid to expedite postwar planning for public works construction by state, city, country and other local groups. Late in 1944 President Roosevelt recommended that an item of $75,900,000 for loans and advances to local government groups through the Federal Works Agency be included in the Deficiency Bill (H.R. 5587) passed late in December. However, Congressional leaders preferred to leave this chore for the new Congress, which may be asked to provide funds for public works planning in a bill written specifically for this purpose.

The year end report of the war contracts subcommittee to the Senate Committee on Military Affairs, which was dated Dec. 18, makes a strong appeal for adequate federal aid for postwar planning by local governmental units. This committee recommends that the federal lawmakers take action to assure 60,000,000 jobs in the first postwar year, which is considered possible only if Congress acts to aid local planning groups to carry part of the load.

Maj. Gen. Philip B. Fleming, Federal Works Administrator, in November in speaking before the New Jersey State League of Municipalities at a New York meeting expressed the view that federal help was soon forthcoming. (*ENR*, Nov. 23, 1944, vol. p. 651). The cumulative effect of all these factors is expected to produce early Congressional action.

• • •

San Diego aqueduct work to start next spring

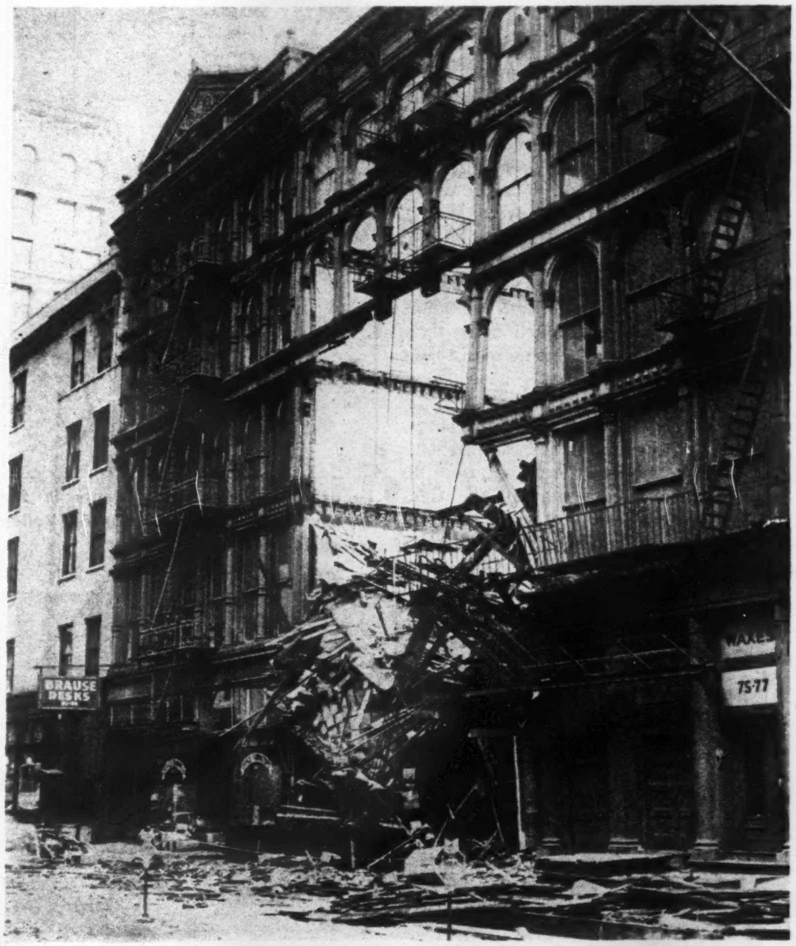
Following President Roosevelt's approval of a $17,500,000 war emergency project to carry 50,000,000 mgd. of Colorado River water to San Diego. Calif., Bureau of Reclamation officials predict that construction of the aqueduct will begin early next spring and be completed within 14 to 20 months. It will tap Metropolitan Water District lines in the vicinity of San Jacinto and channel water to the San Vicente reservoir. Water to be carried by the emergency aqueduct will offset daily consumption by military establishments in the area and end San Diego's present fear of a water famine, it is believed. The work will be financed by Army, Navy and Reclamation Bureau funds.

Meanwhile the San Diego County Water Authority, seeking a permanent peacetime solution to the water problem, will continue studies to determine if eventually water should be carried to the area via the San Vicente route or by way of the All-American canal to the east.

A $6,000,000 bond issue to finance construction of pipelines, a water treatment plant and regulating reservoir to be completed concurrently with the aqueduct, recently was recommended to the city council by Fred D. Pyle, city hydraulic engineer. New facilities and extensions to the city's water distribution system would make possible the most advantageous use of the 50,000,000 gals. of Colorado water to be delivered to the city.

The project would include two 54-in. pipelines, three 48-in. pipelines, a water treatment plant with a capacity of 60,000,000 gals., and a regulating storage reservoir with capacity of 20,000,000 gals.

Though the aqueduct will be built by federal agencies, it was recommended that the city construct and own its distribution lines outright.



Old building collapses in New York

An old building on Duane St. in the downtown commercial district of New York City collapsed during the evening of Dec. 27. Fortunately, no one was in the building at the time.

The building was typical of many commercial structure still standing in the old part of the city, having been built before the advent of steel framing. Side bearing walls of brick and interior columns carried the timber floor joists. The street front was made up almost entirely of cast and wrought iron panels and columns.

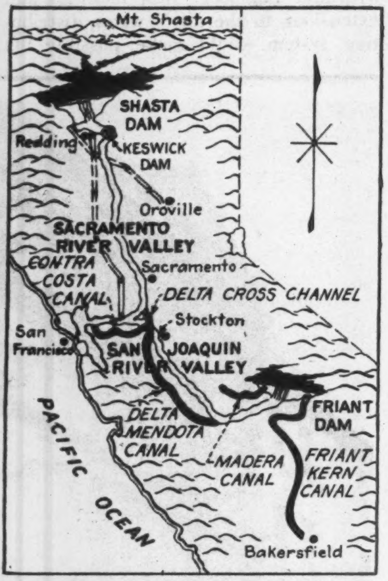
No official report on the accident has yet been made. From a superficial inspection of the wreckage, the cause of collapse would seem to be overloading of one of the upper floors. Cases of paper goods, shown in the picture near the street level, appear to have been piled to about ceiling level on the fourth floor. The building was occupied by the Wansco Paper Products Co.

The only part of the building not carried down in the collapse was the iron facade of the two top floors and the elevator shaft, which is in the right-hand corner at the front.

Central Valley Project— A Bold Venture in Irrigation

One of the boldest, most picturesque and complex water projects of modern irrigation history was started seven years ago, in October 1937, when a dragline began excavating the Contra Costa Canal, the first unit of California's Central Valley project. This huge undertaking of the Bureau of Reclamation—which is designed to provide: (1) River regulation, navigation improvements and flood control; (2) water for irrigation and domestic uses; and (3) water for power production—today is about half completed so far as construction features are involved. Had war production not intervened, with its resultant restrictions on manpower and materials, much more than $155,540,000 of the estimated $316,500,000 cost would have been spent to date.

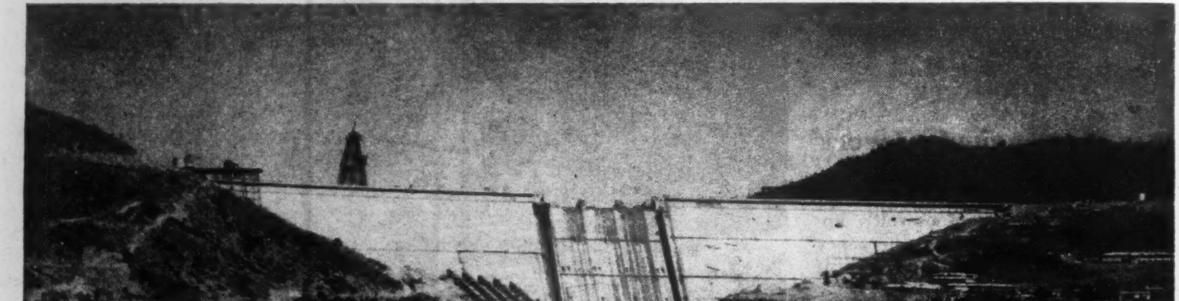
Although the war halted construction, it has not diminished the intensity of controversy over the operation, financing and management of the Central Valley project. In brief, the controversies concern primarily the question of costs and their relation to the charges that must be made for water and other services. Involved in this are federal, state and local units of government as well as private groups representing utility, agricultural and industrial interests. All the money for the project has been advanced under Congressional approval in accordance with appropriations made under Rivers and Harbors Acts and Bureau of Reclamation budgets. It is the formula for partial repayment of these sums that poses many difficult problems.


Mt. Shasta
SHASTA DAM
Redding
KESWICK DAM
Oroville
SACRAMENTO RIVER VALLEY
CONTRA COSTA CANAL
Sacramento
DELTA CROSS CHANNEL
Stockton
San Francisco
SAN JOAQUIN RIVER VALLEY
PACIFIC OCEAN
FRIANT DAM
DELTA MENDOTA CANAL
MADERA CANAL
FRIANT KERN CANAL
Bakersfield

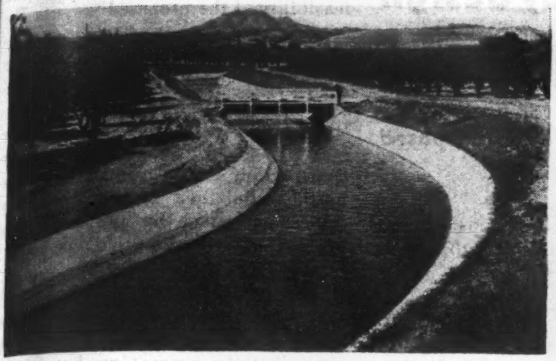
Location of principal projects in the Bureau of Reclamation's Central Valley irrigation system.

From data furnished by the Bureau of Reclamation, an inventory of physical accomplishments would reveal the highlights of progress depicted in the accompanying pictures. Authorized but yet to be completed is the 160-mile Friant Kern Canal and 105 miles of Delta-Mendota Canal to carry water along the San Joaquin Valley.

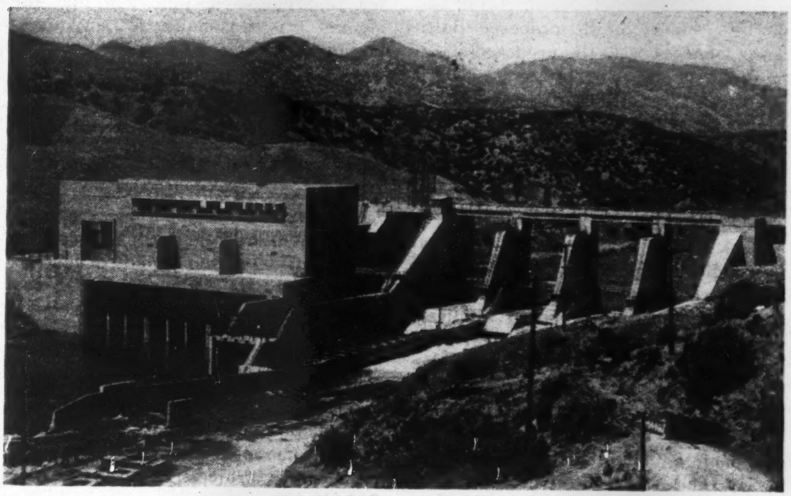
For more detailed information on the project reference should be made to *ENR*, Aug. 19 and 26, 1937, Vol. p. 299 and 344; and Jan. 20, 1938, Vol. p. 109.



Shasta, second largest masonry dam in the world, now nearing completion, will provide storage for about 4,500,000 acre-ft. of water. The reservoir was filled with some 1,157,000 acre-ft. in 1944, and the water was released to irrigate 255,000 acres in the Sacramento Valley.



Construction of the Contra Costa Canal (top left), first unit of the Central Valley project, was started in Oct. 1937. Today, 38 miles are in service and its completion is one of the first projects scheduled to be undertaken by the Bureau of Reclamation in its postwar construction program. Top right: The Madera Canal is complete to the Fresno River, and is feeding water to 30,000 acres in the lower San Joaquin Valley.



Keswick Dam, on the Sacramento River, a few miles down stream from Shasta, impounds and regulates the water that has been discharged through the Shasta power plant for further use down stream. The project was begun in 1941 and is now 65 percent complete.

Friant, second largest dam in the Central Valley system, is complete with exception of control valves and gates. War Production Board restrictions have prevented these installations. However, water from Millerton Lake is being released into the Madera Canal by use of control valves temporarily moved from Boulder Dam.

Contract for Maryland highway design approved despite protest in Baltimore

Governor approves contract with J. E. Greiner Co. for preliminary engineering work on two sections of connections to the proposed Baltimore-Washington expressway.

Despite protests from the Downtown Committee of Baltimore, Governor O'Conor of Maryland, on Dec. 28, approved contracts between the State Roads Commission and the J. E. Greiner Co., engineers, Baltimore, for preliminary engineering, designs, specifications and contract drawings for two of five sections of the proposed Baltimore connections to the proposed Baltimore-Washington expressway. The contracts cover Sections 1 and 4, as shown in the accompanying table, and total $156,800. Costs of the work as given in the table do not include land.

Harbor bridge planned

Back in 1937 when plans for improving highway facilities through Baltimore were under consideration the State Roads Commission proposed to divert through traffic around the central business district of the city by a bridge over the harbor. Designs for that bridge were made by the Greiner Co., but shipbuilding developments before the war made a change in the location necessary, and while those changes were being made the war put an end to the work.

Meanwhile construction of an expressway through the heart of the city connecting with the projected Washington expressway was being advocated by commercial interests in Baltimore who feared that the harbor bridge route would by-pass the city to its disadvantage. Tentative plans for such a freeway recently were submitted to Baltimore by a group of consultants headed by Robert Moses of New York (*ENR* Oct. 19, 1944, vol. p. 467).

In recent months the State Roads Commission came to the conclusion that both the harbor bridge and the freeway would be required ultimately, and with the approval of the Public Roads Administration began to plan accordingly. The Greiner agreement was the result. Because of its size, it was questioned at the time it was announced, and the Governor appointed a committee to report on the fee (*ENR* Nov. 9, 1944, vol. p. 594). A summary of the committee's findings are given in the following.

It is understood that both the commission and the PRA favor building the harbor-bridge route first as it can be completed in two years. The proposed Franklin Expressway through the city could then be built as funds became available. Final decision on this, however, is being left to the city.

Fee found reasonable

The three-man committee appointed by the Governor to pass on the Greiner fee reported some time ago that the amount was reasonable for an undertaking of the unusual magnitude of this project.

With C. E. Swain of the Public Roads Administration acting as consultant, the committee, composed of S. S. Steinberg, dean of the school of engineering at the University of Maryland, Nathan L. Smith, chief engineer of Baltimore, and W. Watters Pagon, consulting engineer, considered the proposed contract with the J. E. Greiner Co. also cost data and other information that were presented by Ezra B. Whitman, chairman of the Maryland State Roads Commission. The report included the accompanying table, giving estimated construction costs based on 1944 prices and the amounts of the engineering fees for the five projects involved, totaling $19,615,000.

"The reasonableness of the fee," the report stated, "is based upon the combined judgment of the committee and their consultant, drawing from their own experience and from data available to them."

It was also pointed out "that the Maryland State Roads Commission already has undertaken and completed, through the J. E. Greiner Co., certain necessary and preliminary studies to determine the general location and feasibility of the proposed projects. The cost of these studies was $89,500. This cost, if added to the fee proposed for completing these studies fully to develop contract plans ready for advertising, would give 4.23 percent as the entire engineering cost preparatory to construction. This percentage and those in the tabulation, lie well within the criteria accepted by the engineering profession for work of this type and extent."

Minority report

Accompanying the report to the Governor was a statement by Mr. Pagon approving the percentage, but not the amount of the fee.

"It is one thing for us to pass judgment upon the rate, or percentage," he wrote; "it is a very different matter to pass upon the amount, in dollars, that will result from such a rate. . . . In signing the report I am making no commitment as to the amount of the fee, but only the percentage rate."

Furthermore, Mr. Pagon could not see sufficient merit in a by-pass bridge, or tunnel, (Sections I, II and III in the accompanying table) to justify including the bridge approaches as a project that should even be surveyed and designed, and he claimed that what he advocated is now approved by Robert Moses and associates, who prepared a Baltimore arterial report in October of last year.

In addition to the committee's suggestion to Governor O'Conor that when engineering and surveying personnel again become available, the Maryland State Roads Commission should return to the policy of doing its own surveying and design work and of contracting with consulting engineers only on projects of magnitude and complexity, Mr. Pagon indicated that he did not concur in the application of the proposed rate to work which would normally be done by the commission.

Estimated Construction Costs and Engineering Fees for Baltimore Highway Projects

Approaches to Baltimore Harbor Crossing	Miles	Engineering	Estimated construction cost	Percentage fee
Section I.— From existing Washington–Baltimore Boulevard to intersection with the proposed Washington–Baltimore Freeway	1.7	$42,700	$995,000	4.28%
Section II.— From intersection Washington–Baltimore Freeway to south end of Harbor Crossing	7.4	215,100	6,000,000	3.58%
Section III.— North Approach from Pulaski Highway to north end of Harbor Crossing	2.2	118,400	3,170,000	3.74%
Approaches to Mid-Town Freeway				
Section IV.— From Jessups Road to and including "Y" interconnection with Harbor Crossing	5.0	114,100	2,830,000	4.03%
Section V.— From "Y" Interconnection with Harbor Crossing to Interconnection with Franklin and Mulberry Sts. at Smallwood St	7.5	250,700	6,620,000	3.79%
Totals	...	$741,000	$19,615,000	3.78%

Giant derrick for Soo launched at Muskegon

The million dollar lifting barge, Paul Bunyan, believed to be the largest floating derrick ever built on the Great Lakes, was launched at Muskegon, Mich., on Dec. 16 for eventual use at the MacArthur locks, Sault Ste. Marie.

Named for the north woods' legendary character because of its amazing size and power, the derrick will have a lifting capacity of 250 tons. It was designed especially for use at the locks, where it will see service next spring.

The barge, measuring 150 by 65 ft., was assembled at the yards of the Love Engineering & Construction Co. It is being fitted out by the Wiley Equipment Co. of Fort Deposit, Md.

• • •

Extensive new levees on Mississippi finished

The northeast section of Louisiana is now protected from Mississippi River and Arkansas River floods by 388 continuous miles of levees from Pine Bluff, Ark., to Old River, La.

Brig. Gen. Max C. Tyler, president of the Mississippi River Commission, said at New Orleans, Dec. 13, that he believed that the recently completed levees along the Arkansas and lower Mississippi rivers, "the greatest flood control project ever undertaken anywhere or by any government," would have controlled the 1927 flood which was the greatest ever recorded. He added that the system "is designed to take care of a flood about 20 percent greater than any of record".

• • •

Maine is forehanded with postwar projects

The Maine Development Commission reports that 218 cities and towns of the state have $3,072,722 of postwar projects ready to start within 30 days. Postwar construction projects not ready but in various plan stages will call for an additional expenditure of $10,949,221. These projects are for 296 municipalities.

Ready-to-go projects will provide 2,218,165 man hours of labor. Projects in the planning stage will provide 6,781,193 man hours. Municipalities have projects totaling $1,500,000 ready to start. Included in the postwar program are roads and bridges, schools, water supplies, storm and sanitary sewers, sewage plants, parks, playgrounds, swimming pools and municipal and state buildings.

Heavy traffic on a section of the road to Tokyo

Recent bombing missions carried out by our B-29 bombers over Tokyo and the Jap home islands emphasize the importance of bases on Saipan Island constructed to accommodate these big planes. On the island are numerous coral mountains, and our Aviation Engineers lost no time in converting this coral into finished runways, taxiways and landing fields.

Coral found on Pacific islands has proved of exceptional value as a surfacing material for airstrips. Details regarding its use are given in an article in Engineering News-Record, July 13, 1944, vol. p. 26.

In the illustration above can be seen the big shovels (in the background) as they bite deep into the side of a mountain to rip out 500,000 cu. yd. of coral. A constant stream of 10-wheel, two-ton trucks (one every 20 sec.) pass the traffic control post.

The road over which these trucks move was built in five days. Bulldozers, pans and other heavy equipment were employed. On-the-line maintenance men kept this equipment moving to speed construction of the bases.

Florida's barge canal plans now completed

Florida's million-dollar engineering survey for a proposed barge canal is "virtually completed" and construction can be started the moment Congress appropriates funds, according to reports Dec. 18 by Col. A. B. Jones, of the Jacksonville district, U. S. Engineers office.

The most recent estimated total cost of the proposed canal, which would link the Atlantic and Gulf over the original proposed route of the ship canal, was $55,000,000.

For more than a year and a half, approximately 120 engineers, office workers and laborers have been engaged in the survey, with headquarters at Camp Roosevelt, near Ocala. The plans prepared by Army Engineers give a complete technical picture of the proposed canal, and call for a minimum depth of 12 ft. over a bottom width of 150 ft.

Jury sets $2,382,642 as Gandy Bridge price

That the federal government should pay $2,382,642 to the Gandy Bridge Co. for its span across Tampa Bay was the verdict of a federal jury at Tampa, Fla., on Dec. 22. The bridge was seized April 27, 1944, by order of the Secretary of the Navy as an aid to the war.

Presentation of testimony had taken three weeks. Judge William J. Barker had charged that the question involved was what the owner had lost, not what the government had gained.

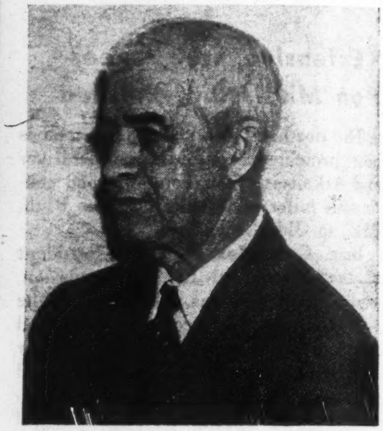
The figure covers the two causeways leading to the bridge, the structure itself, including the bascule draw, all lands, submerged or dry included in the right-of-way, and the intangible properties, which include the franchise to collect tolls for vehicular traffic.

Representatives of the government and of the bridge company are both quoted as agreeing that the price set is a reasonable one.

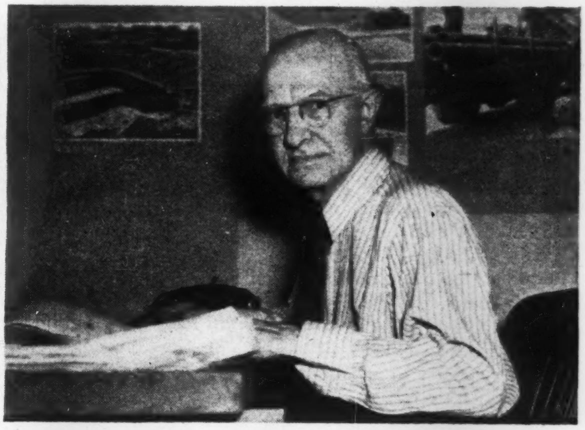
MEN AT WORK

Some prominent members of the construction industry on a recent inspection trip to Seattle's Ross Dam. Left to right: T. H. ORME, project manager, General-Shea-Morrison Co.; C. W. WOOD, general superintendent, General-Shea-Morrison Co.; B. H. COOK, vice-president, General Construction Co., and J. A. McEACHERN, president, General Construction Co.

Long connected with the U. S. Geological Survey, ALBERT H. HORTON, of Washington, D. C., was recently the recipient of a $300 cash "award of excellence" for suggesting a new method of marking paper rolls for recording on stream-gauging instruments. It is estimated that his suggestion will result in an annual cumulative saving of $1,200 at each of some 400 gauging stations of the survey.

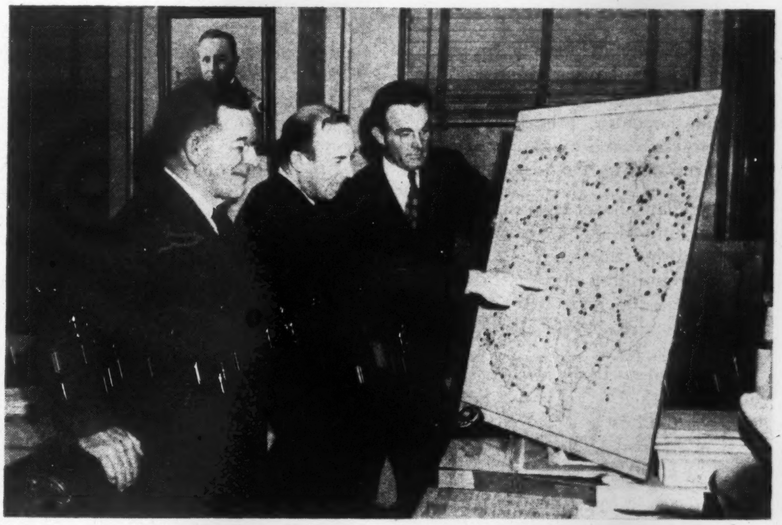


These five Air Forces officers stationed in England, all former engineers or contractors, are feeding the 8th and 9th Air Forces with all the high explosive bombs and other aviation ammunition needed for aerial operations in the European theater of operations. They are left to right: LT. ROBERT M. POSTMA, contractor and co-owner of the Concrete Products Co., Battle Creek, Mich.; LT. BRUCE J. RIGGS, of the Riggs Construction Co., Troy, N. Y.; CAPT. WILLIAM C. ABERNATHY, chief construction engineer on dams for the T. L. James & Co., Inc., and Guilliam Bros., Inc., of Ruston, La.; CAPT. FRANK B. SEBASTIAN, a civil engineer formerly with the Illinois Division of Highways; and MAJ. JOHN B. TIBERI, Jr., Chicago contractor, new head of the Ammunition Supply Division of the Air Service Command.



PAUL E. WICKLAND, regional project engineer, has played an important part in the work of Region 1, for the Public Buildings Administration of the Federal Works Agency. His headquarters are in New York City. Right: Over the desk of J. NELSON HOOD, engineer, Project Control Division, Region 1, F.W.A., go the war public works projects for New England, New York, New Jersey and Pennsylvania where grants, allotments or loans in accordance with the Lanham Act are involved.

MAJOR ARTHUR HOLLETT, chief engineer and assistant chief of the Bolivian party assigned to health and sanitation work by the Coordinator of Inter-American Affairs, illustrates what the properly attired sanitary engineer wears on the Andes highlands. Prior to his assignment to Bolivia, Major Hollett was in charge of sanitation work in the Amazon valley.



In reviewing Ohio's program of pavement widening and resurfacing, R. O. NELSON, chief engineer of construction, points out one of the particularly interesting projects among the total of 152 completed in 1944, to his chief, GLENN R. LOGUE, assistant director and chief engineer, Ohio State Highway Department (left), as FRED W. KIMBLE, assistant chief construction engineer, looks on.

Right: Details of construction for a 10-mg. water supply reservoir for the District of Columbia was the topic of conversation when these three engineers of the district water division got together. They are R. M. DOWE, construction engineer; DAVID AULD, assistant superintendent; and ROY L. ORNDORFF, engineer of design and construction.

BRIEF NEWS

Plans for $3,500,000 new construction in the biggest hospital building program in British Columbia's history have been drawn for completion within the next 18 months. In addition, financing and other plans are under consideration for at least two million dollars more of construction when materials and priorities are available. The end of 1945 or middle of 1946 is expected to see approximately seven million dollars worth of new hospital accommodation added since start of the war.

City Manager A. B. Curry of Miami, Fla., has announced that engineering plans are nearing completion for a $4,000,000 postwar sidewalk construction program. The city will be divided into 25 districts, and each district will conduct a public hearing to decide whether sidewalks are wanted. Costs will be pro-rated among property owners, and the entire program will then be contracted as a single construction job, Curry said.

Three plans have been submitted to the local authorities by Sverdrup & Parcel, consulting engineers of St. Louis, Mo., for rebuilding the Central Avenue viaduct over the Kaw River, a connection between Kansas City, Mo., and Kansas City, Kan.

The bridges will be raised 7.2 ft. to conform with U. S. Army Engineers' flood regulations and the roadway will be strengthened. The cost will be in excess of $500,000.

Dallas County, Tex., the city of Dallas, and Texas state health authorities are conducting tests of sewage pollution in the Trinity River, according to E. W. Sudderth, sanitary engineer for Dallas County.

The tests were occasioned by the occurrence of hydrogen sulphide sludge fumes believed to emanate from decomposing sludge in the Trinity River. The escaping gas caused 1,000 homes in Grand Prairie, between Dallas and Fort Worth, to lose paint, tarnished fixtures and silver and created an almost intolerable odor. Some relief was given by flushing the river with water released from dams above Fort Worth.

Fort Worth and Grand Prairie have increased populations because of war work, and neither is said to have adequate sewage disposal facilities. The War Production Board turned down a plan by Grand Prairie to enlarge its sewage disposal plant at a cost of $80,000 to care for 15,000 people. Fort Worth has applied to the Federal Works Agency for financial help in enlarging its sewage disposal plant at a cost of $700,000. This plant was designed to care for a population of 225,000 but is now serving between 275,000 and 300,000. For this reason, in peak seasons, Fort Worth has had to route untreated sewage into the river, bypassing the plant.

Completion of the Indiana World War Memorial development in Indianapolis by constructing three new buildings and the purchase of the necessary land is under consideration. The proposal calls for completion of the memorial as a tribute to returning World War II veterans, and to afford adequate housing for the national headquarters of the American Legion.

Top priority on the construction list of the three new major highways planned through Louisville, Ky., will be given 2d Street from the Municipal Bridge south to Standiford Field, Mayor Wilson W. Wyatt said recently.

The new routes have been planned by an engineer of the state highway department. They were explained at a recent meeting of the Louisville Area Development Association with representatives of the state, federal, city and county governments present.

Manufacturers' maximum prices for structural clay hollow tile and clay drain tile produced in eight southern states have been increased 59 cents a ton above prices established under the regulation governing ceiling prices for most building materials, the Office of Price Administration has announced. The increase, now effective, applies to producers in Virginia, North and South Carolina, Tennessee, Georgia, Florida, Alabama, and Mississippi.

Pouring of concrete on the Norfork Dam has been finished, thus completing construction work. Moving out the machinery and cleanup work is expected to take about 30 days more. The $10,778,726 contract was let to the Utah Construction Co., Inc., March 10, 1941, and actual work started the following May.

The Virginia highway department has announced that surveys have been completed for two of the ten proposed belt-line distribution roads to speed traffic through and around major Virginia cities in postwar years.

Approval already has been granted by the Public Roads Administration for federal aid for the belt-line roads at Staunton and Martinsville. That aid is expected to be on a 50-50 matching basis.

Master plan committee for Wisconsin towns

A master planning committee has been created in Milwaukee County, Wis., for the purpose of coordinating solutions involving problems which affect more than one municipality.

E. A. Howard, county regional planning engineer, is the general chairman of the committee, which will be composed of representatives of the cities of Milwaukee, Cudahy, Wauwatosa, West Allis; the villages of Shorewood, Whitefish Bay, West Milwaukee, Fox Point, River Hills, and the towns of Granville, Lake, Greenfield, Oak Creek and Franklin.

The committee will study plans for the following types of service:

Transportation: Coordination of air, rail, and water routes and of terminal facilities; servicing of industrial, commercial and residential areas by street car and bus.

Utilities and public services: Water and power supply systems; waste and sewage disposal facilities; safety and fire protection systems; and housing for government agencies.

***Community and cultural** facilities:* Schools and libraries, hospitals, clinics and health centers; park and recreation developments; and community centers.

Industrial activities: Industrial plant sites, parking and storage; transportation needs; nuisance and waste disposal problems.

Residential areas: Neighborhood units including school, recreation, shopping and other facilities; and areas for redevelopment, conservation, protection, and expansion; also dwelling types, housing, and subdivisions.

Commercial areas: Designation of wholesale and retail trade, hotel, amusement and service areas in central business district, and relation of outlying areas to the central district.

St. Francis Hotel builds "barracks" for guests

San Francisco's Hotel St. Francis, acknowledging the city's tight housing problem, as increasing numbers of servicemen pass through enroute to and from the Pacific, recently completed plans for immediate construction of a 125-room plywood "barracks" in part of the building's store space.

Under contract to Taylor & Goericke, San Francisco, the annex is expected to be completed by Feb. 1. Rooms, 6x8 ft., will have no ceilings, to facilitate ventilation, and will have bare floors in the interest of cleanliness. Each is being fully equipped.

MEN AND JOBS

Samuel I. Zack has joined Gannett, Fleming, Corddry and Carpenter, Inc., of Harrisburg, Pa., as sanitary engineer on sewage and water purification. Mr. Zack is a graduate of the Massachusetts Institute of Technology and spent ten years with the sanitary district of Chicago in the sewage experimental station and on the design of sewage treatment works. Later he was with Fraser Brace Engineering Co. on water, sewage and industrial waste treatment plants and more recently with Stone & Webster Engineering Corp. on water works and sewage plants in connection with war work.

Capt. W. M. Angas, USN, has been promoted to commodore in the U. S. Navy. He is now officer in charge of a naval construction brigade in the Southwest Pacific. A graduate of M.I.T. in 1917, Commodore Angas entered the Civil Engineering Corps of the Navy and has served as public works officer in many Navy yards.

George M. Green, Jr., utilities officer with the post engineer's office at Camp Butner, N. C., has been promoted to captain from first lieutenant. A civil engineer, Captain Green, prior to reporting for active duty with the Army in April, 1942, was associated with the U. S. Waterways Hydraulic Experiment Station at Vicksburg, Miss., under the U. S. Army Engineers, rivers and harbors section.

Phil Kline, after two years with Dravo Corp. at Wilmington, Del., has been advanced to assistant to the administrative manager at the Wilmington works. He previously worked on construction with Utah Construction Co., The Tennessee Valley Authority, Electric Bond and Share Corp., Jones and Laughlin Steel Corp., and West Penn Power Co.

Harold Vagtborg, director of the Armour Research Foundation of Illinois Institute of Technology since 1936, is resigning to become president of the Midwest Research Institute, Kansas City, Mo. He will continue as a trustee of Illinois Tech. **Dr. Jesse E. Hobson,** head of the electrical engineering department at Illinois Tech since 1941, will succeed Mr. Vagtborg.

Henry Miller, chief designer for the Harza Engineering Co., Chicago, for the last 6 years, has resigned to establish a consulting engineering practice in structural design, with offices at 8 South Dearborn St., Chicago. Mr. Miller received his civil engineering degree in 1917 from Valparaiso University.

Brig. Gen. Murray M. Dillon, in civilian life a consulting engineer of London, Ont., has been appointed deputy quartermaster general (senior engineer officer) for the Canadian Army to succeed Brig. Gen. Noel Lambert of Vancouver, resigned. Dillon takes over supervision of the construction and development for the Royal Canadian Engineers.

Wilbert W. Henkelman has resigned as resident state highway engineer for Erie and Huron counties, Ohio, to work with his own firm, the Judson Civil Engineering Co., Sandusky.

Conrad O. Mannes has succeeded A. S. Leeper as county engineer of King County, Wash. Mr. Mannes, in engineering practice since 1914, has served with the Chicago, Milwaukee & St. Paul, and other railroads.

Gen. Andrew G. L. McNaughton, engineer and former commander of the Canadian Army Overseas, has been retired and promoted to the rank of full general. He is the fourth Canadian to receive this honor.

George G. Whitmore of the Maps and Surveys Division of the Tennessee Valley Authority is in Brazil on loan to the Brazilian government to advise them on mapping methods and procedure.

Lt. Col. William A. Davis, Jr., Army district engineer at Little Rock, Ark., since last January, has been promoted to colonel. He was graduated from the United States Military Academy in 1931, and holds a BS. and MS. degree in civil engineering from Carnegie Institute of Technology.

L. B. Ackerman is engineer in charge of the new construction engineer's office established at Coeur d'Alene, Ida., by the U. S. Bureau of Reclamation. The office will supervise development of the Rathdrum Prairie irrigation project.

A number of changes in the field organization of the engineering bureau of the New York City Board of Water Supply have taken place during the past few months. With the retirement of former department engineer **James A. Guttridge** on June 1, Senior Division Engineer **Hiram A. Hill** was designated as acting department engineer of the watershed department and now directs the work of the Executive, Downsville, Neversink and Lackawack divisions of that department.

With the recent retirement of **Neil C. Holdredge,** the Northern department, of which he has been department engineer since its inception in 1937, ceased to exist as a separate department. The Rondout division now reports directly to the chief engineer and the few remaining members of the personnel at Newburgh constitute the Newburgh section of the Eastern department.

George A. Gregory, construction engineer on Alder Dam and powerhouse, has been promoted to civil and hydraulic construction engineer in charge of the Second Nisqually Power Project for Tacoma, Wash.

Thomas Dixon Burke of Raleigh, N. C., who attended North Carolina State College and entered the Army in August, 1943, has been commissioned a second lieutenant in the Corps of Engineers. He was graduated from the Engineer Officer Candidate School at Fort Belvoir, Va.

W. B. McMullen, town engineer of Sudbury, Ont., since 1930, has resigned and will resume private practice in Halifax, N.S.

K. B. Sanders, Missoula, Mont., engineer with the Public Roads Administration, has been assigned to construction on the Pan-American Highway system with headquarters at Cochabamba, Bolivia.

Jesse M. Page, Jr., of Raleigh, N. C., now in the Central Pacific with a construction battalion, has been promoted to lieutenant, junior grade, in the Naval Reserve.

E. J. Allen, supervisor of sterilization and water control in the Seattle, Wash., water department, has been appointed sanitary engineer for the Cedar River watershed control.

Earl O. Mills of St. Louis, Mo., has been named town-planning consultant for the Greater Winnipeg, Man., metropolitan committee.

Donovan J. Rice, of Chicago, Ill., sanitary district engineer on military leave and serving on the staff of Lt. Gen. Robert L. Eichelberger, has been promoted to lieutenant colonel in New Guinea.

Three Mexican projects amount to $66,000,000

Three large projects were announced for Mexico last week. One of them calls for the expenditure of $11,000,000 for an oil refinery at Irapuato, Guanajuato, to be erected by Petroleos Mexicanos, government-owned.

The federal department of public works announced that $30,000,000 has been allocated for new highways to be spent during 1945.

Mexico representatives of Bethlehem steel said $25,000,000 would be expended to develop iron deposits in the Las Truchas district of Michoacan.

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Extensive postwar plans for Florida highways

The state of Florida has extensive plans for postwar highway development, which, according to J. H. Dowling, state highway engineer, will involve an expenditure of $66,750,000 in the first three years, and the completion of which within from seven to fifteen years might call for $161,548,000.

Funds for the three-year program, at least, are fairly well assured, Mr. Dowling says, and he gives these reasons: Because recent highway work has been restricted there is now $14,000,000 in the state road license fund; a yearly revenue of about $18,000,000 is anticipated from the 4c. per gallon gasoline tax when travel again becomes normal; an additional $300,000 or $400,000 annually, it is probable, will be realized from surplus county gas tax funds; and it is expected that the state will receive about $6,250,000 a year under the new federal highway legislation.

Mr. Dowling declared that postwar plans are based upon recognition of the fact that in the state-maintained system there are 550 miles of unpaved roads which should be paved and an additional 3,600 miles which are in need of reconstruction. There is also need for bridge improvements. The 2,687 bridges in the system include 1,624 of timber construction which should be replaced with concrete or steel and concrete bridges just as soon as possible.

In speaking of the proposed new road construction in Florida, the state highway head said: "Much of the construction on the proposed Interregional Highway system will embody the principle of limited access, thus reducing dangerous intersections. Even where access is permitted entering traffic will be required to turn with the stream of traffic, and not permitted to make a complete crossing on the through road. Another feature designed to promote safety on the interregional system will be the elimination of long stretches of straightaway level roads by the introduction of gentle curves and elevations, even artificially and arbitrarily if need be, to relieve the monotony which is found to contribute to highway accidents."

JOBS OF THE WEEK

HOUSING, San Francisco, Calif.

De Luca & Son, San Francisco, has been awarded a contract by Public Housing Authority, San Francisco, for housing Bayshore Hy., near Geneva Ave., at $1,079,000. George E. Ellinger, Charles H. Lee, and James H. Mitchell, 369 Pine St., San Francisco, are the architects.

GASOLINE REFINING PLANT, Houston, Tex.

Shell Oil Co., Inc., Houston, awarded a contract for fluid catalytic high-octane gasoline refining plant, auxiliary plant to recover hydrocarbons, water cooling towers, gas and oil lines, water systems to Foster-Wheeler Corp., Houston, C. F. Braun Co., Alhambra, Calif., Fluor Corp., Ltd., Los Angeles. The estimated cost is $11,285,000.

SUBSTRUCTURE FOR RAILROAD BRIDGE, East Pittsburgh, Pa.

Union Railroad Co., H. A. Sayre, Pittsburgh, has awarded a contract for the substructure of a railroad bridge over Pennsylvania Railroad tracks; bridge Turtle Creek, high grade bridge; crew dispatchers bridge over Baltimore & Ohio tracks and a low grade bridge to McGrady Construction Co., Pittsburgh, Pa. The total estimated cost is $2,500,000. Work includes grading, draining, and concrete substructures.

WATER TUNNEL, Baltimore, Md.

S. A. Healy Co., Chicago, Ill., was the lowest bidder for constructing Liberty Road-Montebello water tunnel when the Board of Awards, City of Baltimore, opened bids. The amount is $7,635,000. Bureau of Water Supply, Baltimore, is the engineer.

Note—Additional bidding and contract news on many projects large and small appear in the Construction News section beginning on page 15.

MEETINGS

National

Canadian Construction Association, annual meeting, Chateau Frontenac, Quebec, Canada, Jan. 15-17.

American Road Builders' Association, 42nd annual meeting, Stevens Hotel, Chicago, Ill., Jan. 16-19.

American Society of Civil Engineers, annual meeting, Hotel Commodore, New York City, Jan. 17-19.

Associated Equipment Distributors, 26th annual meeting, Edgewater Beach Hotel, Chicago, Ill., Jan. 22-24.

Regional and Local

Kansas Contractors' Association, 22nd annual meeting, Kansas City, Mo., Jan. 11-12.

Associated General Contractors of Minnesota, 26th annual meeting St. Paul Hotel, St. Paul, Minn., Jan. 11-13.

Louisiana Engineering Society, annual meeting, St. Charles Hotel, New Orleans, La., Jan. 11-13.

Oklahoma Society of Professional Engineers, annual state meeting, Huckins Hotel, Oklahoma City, Okla., Jan. 12-13.

New York Section, American Water Works Association, midwinter luncheon meeting, Pennsylvania Hotel, New York, N. Y., Jan. 17.

Philadelphia District, American Society for Testing Materials, symposium on magnetic particle testing, Hotel Benjamin Franklin, Philadelphia, Pa., Jan. 22.

New York State County Highway Superintendents Association, annual meeting, Albany, N. Y., Jan. 24-26.

North Carolina Society of Engineers, winter meeting, Hotel Sir Walter, Raleigh, N. C., Jan. 26-27.

Wisconsin County Highway Commissioners' Association, annual winter highway conference, Schroeder Hotel, Milwaukee, Wis., Jan. 30-Feb. 1.

Colorado Society of Engineers, 29th annual convention, Shirley-Savoy Hotel, Denver, Colo., Feb. 1-3.

New Jersey Section, American Water Works Association, winter meeting, Winfield Scott Hotel, Elizabeth, N. J., Feb. 8.

Ohio Society of Professional Engineers, annual convention, Deshler-Wallick Hotel, Columbus, Ohio, Feb. 15-16.

Southeastern Association of State Highway Officials, annual convention, Thomas Jefferson Hotel, Birmingham, Ala., Feb. 21-22.

Arkansas Engineers Club, annual convention, Hotel Marion, Little Rock, Ark., Feb. 23-24.

News of the Engineering Schools

The allocation of State funds for planning the construction of two buildings for the engineering school at the Johns Hopkins University, Baltimore, was recommended to the Board of Public Works Dec. 18 by the Maryland Commission on Postwar Reconstruction and Development.

Commission members said it is understood that Johns Hopkins officials also will ask the Legislature to appropriate funds for the construction, estimated to cost **$1,250,000.**

A. A. Brielmaier, formerly structural engineer with the U. S. Engineer Offices in Omaha, Neb., and Denison, Tex., is now associate professor of civil engineering at Pennsylvania State College.

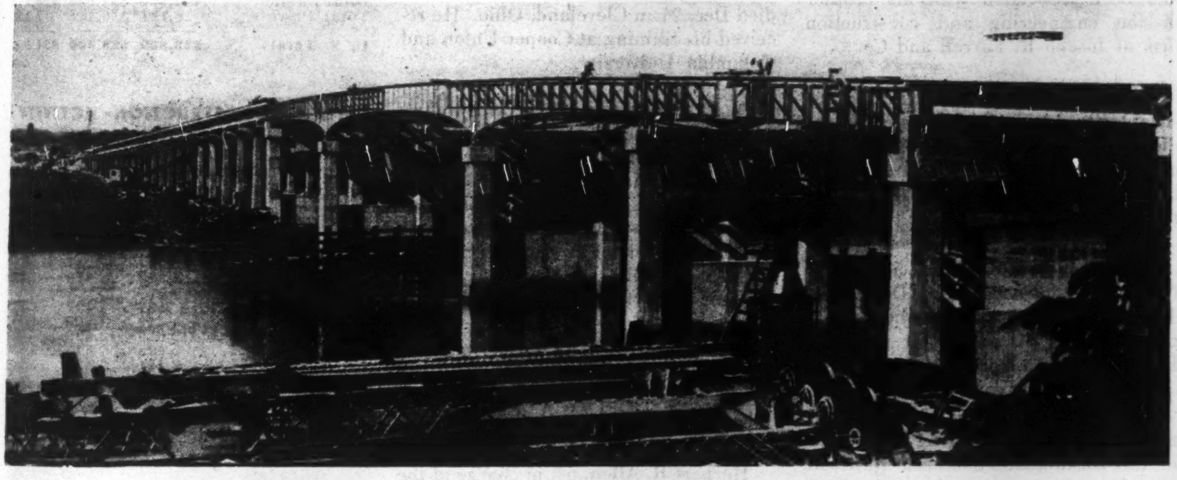
Ludwig K. Hilberseimer, professor of city planning at the Illinois Institute of Technology, in cooperation with officials of the Art Institute, has placed on exhibition his plan for the "Chicago of the future." He says that his plan for Chicago would permit most people to live near their work, and that changes could be effected gradually at comparatively small cost and without serious interruption of urban activities.

The wartime years have witnessed the output of a flood of narrowly trained technicians and engineering aides who cannot qualify as full-fledged engineering graduates, and who in the postwar period will create a difficult problem for industry, Prof. James Kip Finch said in his annual report as dean of Columbia University Engineering School.

They are, he points out, the product of normal programs of engineering study, accelerated and abbreviated to meet war requirements, and special courses organized to train such engineering assistants to meet the immediate demands of a mechanized war and of war industries.

"These trends are especially disturbing in view of the fact that our scientific and engineering schools, because of war conditions, have been able to turn out very few graduates trained in the upper levels," Professor Finch declares. "It now seems feasible for us to return from the present compulsory accelerated program to the regular two sessions and the normal academic calendar beginning with the opening of the winter session of 1945. We are further impelled by an increase in graduate registration and the fact that a major part of our educational offerings has long been in the field of graduate instruction and research. We believe it is in this field that postwar educational demands, as well as professional and industrial needs, indicate that we may be of greatest public service."

Prof. E. G. Harris, 83, emeritus head of the department of civil engineering, Missouri School of Mines, Rolla, Mo., died Dec. 21. He served the school for 53 years, starting as director in 1891. In 1893 he became head of the department of civil engineering. He was graduated from the civil engineering department of the University of Virginia in 1882, and worked first with the Missouri Pacific railroad at Van Buren, Ark. He supervised the building of the Cotton Belt railroad bridge over the Arkansas River at Rob Roy, Ark. Harris designed the first waterworks and sewage disposal plant in Arkansas, and was interested in the building of permanent highways in Arkansas and Missouri.



Georgia to open Darien River Bridge this week

Nearing completion by the Georgia State Highway Department is a new dual-lane, high-level bridge over the Darien River on U. S. Route 17, commonly known as the Coastal Highway. This structure will be dedicated and opened to traffic Jan. 6. Costing over $1,000,000, the project is the largest bridge job carried out in 1944 by the department.

The bridge, which has a total length of 1,452 ft., provides two 22-ft. roadways separated by a 3-ft. median strip and with a 4-ft. sidewalk at either side. The crossing over the main channel consists of a 91-150-91-ft., 3-span, plate-girder structure, an 86-ft. section being suspended from cantilevers in the middle span. Three lines of girders are used. In the middle span a 37-ft. clearance above mean low water is provided for a width of 95-ft., the total clear span between fenders being 110 ft.

An 80-ft. plate girder span and twenty-six 40-ft. concrete T-beam deck spans make up the approaches. The grade on one approach is 2½ percent, while that on the other is 3½ percent.

The Scott Construction Co., Thomasville, Ga., represented on the job by J. C. Scott, as superintendent, was the general contractor. Steel erection was by the Nashville Bridge Co., Nashville, Tenn., which also fabricated the steel. Milo Sherman was superintendent of erection for Nashville Bridge Co.

For the highway department, G. T. McDonald is state highway engineer, C. N. Crocker, bridge engineer, and D. D. Hankins, division engineer. E. W. Ellis has served as resident engineer.

OBITUARY

Corydon T. Purdy, 85, chairman of the board and former president of the Purdy & Henderson Co., engineers, New York, and one of the early developers of the steel skyscraper, died Dec. 25 at his home in Melbourne, Fla. Mr. Purdy received a civil engineering degree from the University of Wisconsin in 1886. He started as a consulting engineer in 1889 in Chicago, specializing in bridge design. Soon afterward he saw the possibilities of steel in the construction of tall buildings and turned from bridges to the new type of building. One of his first was the Tacoma Building in Chicago. In 1894 Mr. Purdy opened his New York office and designed the foundations and structure of the old Waldorf-Astoria Hotel. He had charge of the structural design of many important New York buildings, including the Metropolitan Life Tower, the Flatiron, New York Times and the Whitehall buildings. In Cuba his firm built the national capitol and the Hotel Nacional.

James P. Farrell, 55, Philadelphia, Pa., civil engineer, died Dec. 20. He had been associated with his brother in the engineering and construction firm of Joseph R. Farrell and Co.

Thomas Carver, 73, a retired assistant city engineer of Seattle, Wash., died there Dec. 22. He designed the city's Diablo hydroelectric dam and helped to establish the city's water supply system.

Royal Lindsay Rowland, 57, Pacific Northwest contractor, died Dec. 21 at Tacoma, Wash. At one time he was district engineer at Seattle for the Portland Cement Association.

August John Palmer, 58, long connected with the engineering department of the Birmingham-Southern Railroad, died Dec. 10.

Benjamin L. Campbell, 60, who retired as civil engineer with the U. S. Corps of Engineers at Portland, Ore., in October, died Dec. 9 at Medford, Ore.

James E. MacKenzie, well known engineer in Western Canada, died in Calgary, Alta., Dec. 10.

Robert W. Hubel, 53, Detroit, Mich., chief designer for and a partner in the firm of Albert Kahn, Associated Architects and Engineers, Inc. died Dec. 14. He had been associated with the Kahn Organization since 1917.

Samuel B. Code, city engineer of Smith's Falls, Ont., for the last 38 years, died Dec. 15.

Frank Y. McLaughlin, 61, San Francisco civil engineer, died Dec. 17 in Mexico City, where he had gone as a member of the United States Foreign Economics Administration. Mr. McLaughlin specialized in steel construction and bridge building. During World War I he supervised ship construction and was a captain in the Army Corps of Engineers. In 1933 he helped organize the Works Progress Administration and went to California to become inspector for four western states. He helped organize the 1939 Golden Gate International Exposition and organized the Union Square Garage Corp., which built a block square underground garage in downtown San Francisco. Mr. McLaughlin was a graduate of the University of Wisconsin, 1905.

Walter S. Anderson, 64, assistant to the post engineer at the Erie Proving Grounds, LaCarne, Ohio, died Dec. 18 in Oak Harbor, Ohio.

Alfred E. Trudeau, 60, a civil engineer with the Erie Railroad for 19 years, died Dec. 21 in Cleveland, Ohio. He received his training at Cooper Union and Columbia University.

A. E. Sanderson, 62, recently office engineer in the Department of Public Works of British Columbia, died Dec. 20 at Sierre Madre, Calif.

Eckstein Case, 86, secretary-treasurer of the Case School of Applied Science, Cleveland, Ohio, for half a century, died Dec. 20. He retired in 1937.

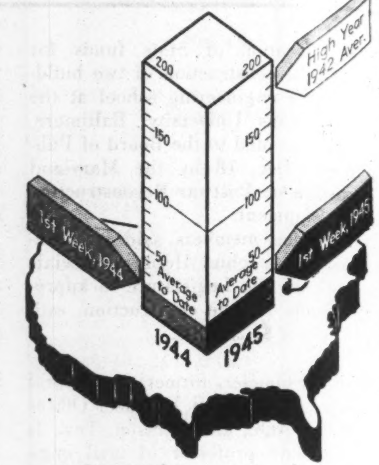
Arthur J. Mullen, 68, former member and president of the Los Angeles, Calif., Board of Water and Power Commissioners, died recently.

Herbert B. Allen, 64, in charge of the laboratory for the Fitchburg, Mass., sewer department since 1914, died in that city Nov. 30. He was a native of Gardner, Mass., and in his early career was employed in the sewer department at Worcester, Mass., and later by the Louisville, Ky., sewerage commission.

William P. Carmichael, 86, civil engineer, died Dec. 17 in St. Louis, Mo. Among his undertakings in St. Louis was the Kingshighway Viaduct. He was a consulting engineer for the Wabash Railroad for more than 40 years.

CONSTRUCTION ACTIVITY THIS WEEK

(Millions of Dollars)



As Reported to . . .
Engineering News-Record

CONTRACT VOLUME

Continental U. S. Only
(Thousands of Dollars)

	Week of Jan. 4 1945	Cumulative 1945 (1 wk.)	Cumulative 1944 (1 wk.)
Federal	$6,373	$6,373	$12,288
State & Municipal.	6,255	6,255	2,126
Total Public	$12,628	$12,628	$14,414
Total Private	16,181	16,181	7,183
U. S. Total.......	**$28,809**	**$28,809**	**$21,597**

WHERE CONSTRUCTION ACTIVITY ORIGINATED THIS WEEK

	Dollar Volume (Thousands)		
		Cumulative	
Type of Work	This Week	1945 (1 wk.)	1944 (1 wk.)
Waterworks	$289	$289	$15
Sewerage	570	570	798
Bridges	2,747	2,747	844
Highways	4,972	4,972	1,489
Earthwork, Waterways	197	197	779
Buildings, Public...	4,309	4,309	7,797
Industrial	12,629	12,629	782
Commercial	675	675	5,532
Unclassified	2,421	2,421	3,561

NOTE: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1945 (1 wk.)	Cumulative 1944 (1 wk.)
NON-FEDERAL	$5,552	$42,281
Corporate Securities.........		42,000
State and Municipal...	5,552	281
RFC Loans..............		....
FEDERAL	$77,137	$90,832
Total Capital...........	**$82,689**	**$133,113**

ENR INDEX NUMBERS

Index Base = 100		1913	1926
Construction Cost..	Dec. '44	302.30	143.32
Building Cost.....	Dec. '44	236.51	127.85
Volume	Nov. '44	74	33

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.
ELSIE EAVES, Manager *SCOTT McLEOD, Statistics* *J. A. MAHONEY, Reports*
(Daily service also available—Write for details)

Location of ENR Correspondents

Symbols and Abbreviations Include:

†	Federal Government
★	Project of $500,000 or over
ENR	Engineering News-Record
CD	Engineering New-Record Construction Daily

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger; water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Name in order of Listing)

Water Supply
Sewers, Waste Disposal
Bridges
Streets & Roads
Earthwork, Waterways
Latin America
Public Buildings
Commercial Buildings
Industrial Buildings
Unclassified

Stages Reported

PROPOSED: (except Streets & Roads):
BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR);

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

WATER SUPPLY

PROPOSED WORK

★ **Neb., Omaha**—Metropolitan Utilities Dist., 18 and Harney Sts., WW imprvs., incl. mains, lower river intake, improve suction connections, etc. $1,075,000. J. C. Detweiler, c/o Owner, constr. engr.

Ore., Redmond—City, City Hall, water treatment plant. $40,000. R. H. Corey, Corbett Bldg., Portland, engr.

Tex., McAllen—City, voted bonds imprv. WW sys. $150,000. E. M. Card, McAllen, consult. engr. CD 12/15—ENR 10/26.

Wash., Kalama—City, City Hall, water pump. plant. R. H. Corey, Corbett Bldg., Portland, Ore., engr.

Wash., Seattle—City, County-City Bldg., Zone 4, bids soon, reservoir in Magnolia Dist. $60,000. C. L. Wartelle, city engr.

Wash., Vancouver—Aluminum Co. of America, Box 120, Vancouver, installing spraying sys. in plant, incl. sinking 2 wells, installing 2 pumps. $110,500.

Alta., Lethbridge — Municipality, surveys nearing completion 18 in. c.i. watermain. $100,000. J. T. Watson, City Hall, engr. CD 9/30/43—ENR 10/7/43, under Postwar Projects.

B. C., Ladysmith — Municipality, WW imprvs. $60,000.

Ont., Campbellford — Municipality, reservoir. $30,000. G. G. Reid, 7 Edmund Ave., Toronto, engr.

Ont., Gananoque—Parmenter & Bullock, Ltd., 7 Clarence St., WW providing service to new housing development. $50,000. Gore & Storrie, 1130 Bay St., Toronto, engrs.

Ont., Grand Bend—Municipality, water sys. $40,000. G. G. Reid, 7 Edmund Ave., Toronto, engr. CD 11/2—ENR 12/14 under Postwar Projects.

Ont., Leaside—Town, R. N. Burgess, mayor, 211 Bessborough Dr., watermain and sewer imprvs. $70,000. Gore & Storrie, 1130 Bay St., Toronto, engrs.

Ont., Porcupine — Whitney Twp., M. F. Strutt, clk., installing WW sys. and well. $139,000. Gore & Storrie, 1130 Bay St., Toronto, engrs.

Ont., St. Catherines—Niagara Twp., S. Stirling, clk., R R 4, St. Catherines, watermain extens., Queenstown. $20,000. R. B. Erwin, 600 Erie Ave., Niagara Falls, engr.

Ont., Toronto — North York Twp., G. H. Mitchell, reeve, H. D. Goode, clk., exten. WW sys., in area west of Bathurst St. $334,500. G. H. Baker, Municipal Bldg., Willowdale, and Gore & Storrie, 1130 Bay St., Toronto, engrs.

Que., Verdun—City, filtration plant imprvs. $20,000. H. Hadley, c/o City, engr..

BIDS ASKED

Bids Asked Early in 1945

Neb., Chadron—City, Roselyn Mackey, clk., WW sys. imprvs., incl. purification plant new pipe lines. $165,000.

Bids Asked January 10

†**Neb., Crawford**—City, J. F. Richards, mayor, watermain imprvs., Neb. 25-157-N. $150,000. **FWA.** R. Fulton, 2327 S. 19 St., Lincoln, engr. CD 12/22—ENR 12/28.

Bids Asked January 11

†**Tex., Bay City** — City, S. E. Doughtie, mayor, Contr. 2 water distr. sys. addns., extens. incl. 250,000 gal. concrete ground storage reservoir, high service pump. facilities. necessary appurtenances, Tex. 41-702N. **FWA** Plans deposit $10. S. A. Russell, Bay City, engr. CD 11/15—ENR 11/23.

Bids Asked January 12

†**Md., Hyattsville** — At office Washington Suburban Sanitary Comn., P. Boswell, J. D. Clagett, and F. B. Smith, comrs., Hamilton St., Contr. 178 W, constructing approx. 6,060 ft. 6- to 10-in. c.i. watermains. Plans deposit $5; adv. ENR Jan. 4.

Bids Asked After March 15

N. Y., Utica—Bd. Water Supply, H. B. Miles, genl. mgr., 712 Washington St., constructing 8,100 lin. ft. 36 in. mechanical joint c.i. supply main connected to present 24 in. supply main from Marcy Summit, northerly. $175,000. Pipe, fittings and valves, awarded to U. S. Pipe & Foundry Co., East Burlington, N. J., and Darling Valve Mfg. Co., Wiliamsport, Pa.

LOW BIDDERS

La., Baton Rouge — Baton Rouge Water Works, 131 Lafayette St., Dec. 19, water pipelines, appurtenances, from J. B. McCrary Co. Inc., 22 Marietta St. Bl., Atlanta, Ga., **$58,845.** CD 12/8.

★ **Md., Baltimore**—City, Bd. Awards, City Hall, Dec. 21, Liberty Rd.-Montebello Tunnel, from S. A. Healy Co., Stevens Hotel, Chicago, Ill., **$7,635,000.** Est. $5,000,000. CD 12/5—ENR 12/7.

Tex., Dallas—City, E. Goforth, secy., City Hall, Dec. 20, water pipeline, along Inwood Rd. from Hines Blvd. to Denton Dr., from E. H. Reeder Const. Co., 4013 Glendora St. **$72,079.**

CONTRACTS AWARDED

La., Winnfield—Town, water plant imprvs., to Jno. A. Wolfe Contg. Co., Carondelet Bldg., New Orleans, Unit 1, **$23,031.** J. M. Fourmy, Hammond, engr.

N. H., Portsmouth—City, Bd. Street Comrs., City Hall, new equipment at Haven and Sherburne pump. stations, to Ralph P. Hall, Inc., 141 Milk St., Boston, Mass., **$49,352.** Whitman & Howard, 89 Broad St., Boston, Mass., engrs.

Wash., Port Angeles—Public Utility Dist. 1, C. Cowling, mgr., Port Angeles, water sys., east of here, to Hibbs & Lynch, Port Angeles. **$70,191.**

SEWERS, WASTE DISPOSAL

PROPOSED WORK

Calif., Laguna Beach—City, sanitary sewers, outfall and enlarging treatment plant to serve Knight's Addition to Laguna Beach. $150,000. Applied to FWA. J. R. Lester Boyle, City Hall, city engr.

Ia., Villisca — City, C. M. Orr, mayor, making surveys, exten. sewerage sys. and sewage disposal sys. $25,000-$30,000. Stanley Eng. Co., Muscatine, engrs.

Ore., Independence—City, City Hall, sewage disposal plant. Over $25,000.

Tex., Crane—City, making plans sanitary sewers. $60,000. Koch & Fowler, Great Natl. Life Bldg., Dallas, engrs.

B. C., Esquimalt—Owner, c/o T. Hadfield, Reeve, Esquimalt, underground storm water drainage sys. $67,000.

B. C., Kamloops—Municipality, H. M. Levey, clk., sewers and treatment plant. $93,840. Gore & Storrie, 1130 Bay St., Toronto, Ont., engrs. CD 4/26—ENR 5/4.

N. B., Leger Corner—Municipality, c/o M. J. Eislinger, Leger Corner, sewerage sys. $50,000.

Ont., Gananoque—Permenter & Bullock, Ltd., 7 Clarence St., sewerage sys. to new housing development. $60,000. Gore & Storrie, 1130 Bay St., Toronto, engrs.

Ont., Grand Bend—Municipality, sewerage sys. $50,000. G. G. Reid, 7 Edmund Ave., Toronto, engr. CD 11/2—ENR 11/16, under Postwar Projects.

Ont., Porcupine—Whitney Twp., W. F. Strutt, clk., sewerage sys. $110,000. Gore & Storrie, 1130 Bay St., Toronto, engrs.

Ont., Port Arthur—City, W. W. McComber, clk., incinerator. About $50,000. S. E. Flook, c/o owner, engr.

Ont., Ridgetown—Municipality, H. McDonald, clk., sewers, treatment plant. $209,000. Gore & Storrie, 1130 Bay St., Toronto, engrs.

Ont., Toronto—East York Twp., F. J. MacRae, reeve, H. A. Hall, clk., exten. Rockliffe Sewage Disposal Plant, Rockliffe Blvd., York Twp. $35,000. O. M. Falls, 40 Jarvis St., engr.

Ont., Toronto — Korah Twp. Council, sewerage sys. $40,000. G. G. Reid, 7 Edmund Ave., Toronto, Zone 5, engr.

BIDS ASKED

Bids Asked January 16

N. Y., Freeport—Bd. Sewer Comrs., L. Fishel, chn., Municipal Bldg., 46 N. Ocean Ave., altering, imprv. sludge process and filter bldg. at sewage treatment works. Plans deposit $15. Baldwin & Cornelius Co., Inc., Freeport, village engrs.; adv. ENR 1/4.

LOW BIDDERS

Md., Baltimore—City, c/o Bd. Awards, City Hall, Dec. 22, 1 story, brick, concrete Dundalk Pump. Sta., from Reese Tubman Co., 11 Bway., New York, N. Y., **$234,411.** Est. $330,000. CD 12/18—ENR 11/30.

N. Y., Garden City—Incorporated Village of Garden City, at office Dpt. P. Wks., 110 7 St., Dec. 21, addnl. sand filters, Contr. 1, sewage treatment plant imprvs., from Capasso Const. Corp., 865 Liberty Ave., Brooklyn. **$30,735.** CD 11/30—ENR 12/7.

†**Va., Blackstone**—Town, City Hall, Dec. 19, sewerage sys. addns., Va. 44-433, from F. L. Showalter, Inc., Lynchburg. **$36,454. FWA.** CD 12/11—ENR 12/14.

CONTRACTS AWARDED

Man., Winnipeg—Municipality, sewers, to Nelson River Constr. Ltd., 607 Union Trust Bldg., **$38,630** plus material cost. W. D. Hurst, City Hall, engr.

Ont., London—Secy. Dpt. P. Wks., Ottawa, supply, installation sewerage sys. at Health and Occupation Centre, Westminster Military Hospital, to Scott-Jackson Const. Ltd., Box 38, New Toronto, **$38,110.** Bids 12/14. CD 12/5—ENR 12/7.

BRIDGES

BIDS ASKED

Bids Asked January 10

Mich., Grosse Ile—Bd. Comrs. Wayne Co. Road Comn., 3800 Barium Tower, Detroit, Zone 26, rein.-con. slab bridge at East River Rd. crossing of North Hickory Island Canal, near south end of Grosse Ile. L. Smith, Detroit, co. engr.

Bids Asked January 15

N. Y., New York—President Manhattan Boro, Municipal Bldg., Zone 7, reconstructing Riverside Dr. Viaduct, St. Clair Pl. to 135 St. Plans deposit $10. Extended date. CD 12/27.

BRIDGES, etc. (Bids Asked Cont'd.)

Bids Asked January 11

N. H., Rochester—State Hy. Dpt., Concord, 80 ft. stone faced rein.-con. arch bridge, approaches. $70,000.

LOW BIDDERS

Florida—State Road Dpt., Tallahassee, Dec. 19, from Cleary Bros. Constr. Co., Georgia Ave., West Palm Beach, bridge, Bay Co., **$89,329**; reconstructing 1 pier, other repairs to Hathaway Bridge, Bay Co., and similar work on Apalachicola Bay Bridge, Franklin Co., **$59,214**; constructing piling bulkheads and paving side slopes on approaches to Indian River Bridge on Rd. 206, in Cocoa, Indian River Co., **$33,020.** CD 12/5—ENR 12/7, under Roads.

O., Cleveland—City, S. F. David, dir. P. Service, City Hall, repairing Washington Park Bridge, from Domenic Nero Constr. Co., 12202 Superior Ave., **$34,929.** Est. $30,000. Bids Sept. 28, rejected. CD 10/9—ENR 10/12. under LB.

†Va., Fort Myer (sta. Arlington)—U. S. Eng., 1 and Douglas St. N.W., Wash. 25, D. C., Dec. 27, pedestrian underpass, Sect. A, from Cayuga Constr. Corp., Memorial Ave., Arlington, **$31,187.** CD 12/21—ENR 12/14.

†Alaska—Alaska Railroad, Dpt. Interior, G. W. Colwell, chn., engr., Anchorage, Dec. 20, steel for 1 single track, 200 ft. long through truss span for bridge, from Columbia Steel Co., 1054 4 Ave., S., Seattle, Wash., **$26,320**, f.o.b. Birmingham, Ala. CD 12/6.

CONTRACTS AWARDED

★**Pa., East Pittsburgh**—Union R. R. Co., H. A. Sayre, ch. engr., Frick Bldg., Pittsburgh, Zone 30, substructure railroad bridge over Pennsylvania R. R. tracks over Turtle Creek, high grade bridge, crew dispatchers bridge over Baltimore & Ohio R. R., interlocking tracks, low grade bridge, to McCrady Const. Co., 304 Ross St., Pittsburgh. Total est. **$2,500,000.** Bids 12/1. CD 11/28—ENR 11/30.

STREETS AND ROADS

PROPOSED WORK

Puerto Rico—Insular Interior Dpt., San Juan, plans constructing 10.64 kilometers Guaynabo, Camino Nuevo and Limons secondary roads total cost of $180,000 with $18,000 contribution of municipality of Yabucoa, sponsor; Dpt. Interior, San Juan, plans constructing 1.717 kilometers of Ponce-Jayuya Rd. $122,000, 12.24 kilometers Dona Juana secondary road, $68,935, reconstructing 12 kilometers El Verde Rd. $67,000, reconstructing and asphalting 8.8 kilometers El Guineo secondary road, $51,875, asphalting 5.4 kilometers Mariana and Duque secondary roads in Naguabo, $18,378.

BIDS ASKED

Bids Asked January 9

Maryland—State Roads Comn., Baltimore, furnishing, del., applying bituminous concrete base course approx. 4 mi. along Crain Hy., Contr. P 534-511, Prince George's Co.

Bids Asked

Ohio—State Hy. Dpt., Columbus, rejected bids Dec. 12, imprv. 0.353 mi. Hardin Co. CD 12/7.

Texas—State Hy. Comn., B. P. Gentry, chn., Austin, rejected bids Dec. 12, imprv. 8.251 mi. Harris Co.; 16.836 mi. Leon and Madison Counties, CD 12/15—ENR 12/21, under LB; 15.472 mi. Walker Co., CD 12/18—ENR 12/21, under LB.

LOW BIDDERS

★**Florida**—State Road Dpt., Tallahassee, Dec. 19, imprv. 2 mi. Duval Co., and ½ mi. Hamilton Co., from R. T. Gordon, 2077 W. Beaver St., Jacksonville, **$84,865** and **$27,677** respectively***11 mi. Collier Co., and 8 mi. Pasco and Pinellas Counties, from R. H. Wright & Son, Ft. Lauderdale, **$339,008** and **$151,194** respectively***4 mi. Polk Co., from Nolan-Dickerson Co., Lakeland, **$183,906*****2½ mi. Alachua Co., from Marion Contg. Co., Ocala, **$84,714*****1¼ mi. Nassau Co., from Hall & Caddell, 2014 Dennis St., Jacksonville, Zone 4, **$42,076*****6.795 mi. Duval Co., from Duval Eng. & Contg. Co., foot of Adams St., Jacksonville, Zone 1, **$390,658*****1 mi. Okaloosa Co., from Smith Eng. & Const. Co., Pensacola, **$66,920*****3¾ mi. Osceola Co., from R. B. Tyler Co., 1446 Levering St., Louisville, Ky., **$154,989.** CD 12/5—ENR 12/7.

★**Indiana**—State Hy. Comn., Indianapolis, Dec. 21, imprv. 10.11 mi. Montgomery and Boone Counties, from L. P. Cavett Co., 500 Shepherd Ave., Lockland, O., **$137,461**, est. $138,114***9.43 mi. Noble, DeKalb and Whitley Counties, from Hipskind Drainage Co., 1725 Winter St., Fort Wayne, **$119,558**, est. $138,114***9.43 mi. Noble, DeKalb and Whitley Counties, from Payne & Dolan of Wisconsin, 735 N. Water St., Milwaukee, Wis., **$217,627**, est. $251,405***7.11 mi. Warren and Fountain Counties, and 17.63 mi. Madison and Grant Counties, from Rieth-Riley Constr. Co., W. Madison St., Goshen, **$64,802** and **$314,598** respectively, est. $71,486 and $360,561 respectively***12.08 mi. Clinton, Carroll and White Counties, from Mid-American Engr. Corp., Skokie, Ill., **$288,616**, est. $339,308***9.9 mi. Jackson and Lawrence Counties, from R. Rogers, P. O. Box 27, Bloomington, **$233,841**, est. $277,569***11.4 mi. Contr. M 2569, Spencer Co., from Middle West Roads Co., Noblesville, **$169,426**, est. $201,035***10.22 mi. Hendricks Co., from Berns Constr. Co., 129 E. Market St., Indianapolis, **$104,929**, est. $111,884***20.44 mi. Fulton and Miami Counties, from Bontrager Constr. Co., 618 W. Indiana St., Elkhart, **$174,491**, est. $200,566***11.15 mi. Orange Co., from R. P. Olinger, P. O. Box 96, Huntingburg, **$124,035.** CD 12/5—ENR 12/7.

Louisiana—State Hy. Dpt., Baton Rouge. Dec. 20, imprv. 11.5 mi. Vernon, Natchitoches and Rapides Parishes, from Barber Bros. Co., Reymond Bldg., Baton Rouge, **$39,832.** CD 12/11—ENR 12/14.

CONTRACTS AWARDED

★**Ohio** — State Hy. Dpt. Columbus, to Cuyahoga Asphalt & Paving Co., 13125 Shaker Sq., Cleveland, Zone 20, imprv. 3 mi. Geauga Co., **$47,920**, est. $47,980***to Skully Bros., 805 Atlas Bank Bldg., Cincinnati, Zone 2, 3.225 mi. Hamilton Co., **$105,414**, est. $116,900***to Knox Paving Co., 801 Gas & Electric Bldg., Dayton, 2.215 mi. Knox Co., **$24,528**, est. $24,530***to C. M. Gray, Waterville, 5.03 mi. Licking Co., **$33,970**, est. $35,840***to Newark Asphalt Products Co., W. Poplar Ave., Newark, 1.56 mi. Licking Co., **$26,062**, est. $26,100***to Arthur S. Langenderfer & Co., 4690 W. Bancroft St., P. O. Box 815, Toledo, 1.58 mi. Lucas Co., **$41,304**, est. $41,350***to Peirce Constr. Co., 334 W. Bancroft St., Toledo, 0.784 mi. Lucas Co., **$195,538**, est. $196,000***to Kelley & Meyer Co., 522 Dollar Bank Bldg., Youngstown, 6.402 mi. Mahoning Co., **$141,251**, est. $178,240***to Ohio Road Improvement Co., 30 E. Broad St., Columbus, Zone 15, 9.18 mi. Wayne Co., **$91,443**, est. $116,800; 2.637 mi. Medina Co., **$41,943**, est. $47,000; 2.054 mi. Ottawa Co., **$28,282**, est. $28,520***to Max J. Zeller, Inc., 595 W. Goodale Blvd., Columbus, Zone 8, 7.708 mi. Pickaway Co., **$68,789**, est. $85,950***to Mansfield Asphalt Paving Co., 153 Orange St., Mansfield, 3.179 mi. Richland Co., **$60,650**, est. $60,700***to Knox Paving Co., 801 Gas & Electric Bldg., Dayton, 2.314 mi. Richland Co., **$37,775**, est. $37,800***to McCourt Constr. Co., 720 Home Ave., Akron, Zone 10, 2.88 mi. Summit Co., **$56,436**, est. $67,500; 1.804 mi. Summit Co., **$33,400**, est. $38,420***to Maumee Asphalt Paving Co., 1720 2nd Natl. Bank Bldg., Toledo, Zone 4, 1.886 mi. Wyandot Co., **$34,570**, est. $34,620. Grand total $1,069,275. Bids 12/22.

Oregon—State Hy. Comn., Salem., Union rock production and resurfacing project, requiring 8,000 yd. crushed rock in stockpiles, 1,500 yd. crushed rock resurfacing 2.6 mi. Baker and Union Counties and Elgin rock production project on Weston-Elgin and Wallowa Lake Hys., 11,000 yd. crushed rock in stockpiles, Umatilla and Union Counties, to M. C. Lininger & Sons, Medford, **$26,350** and **$31,800** respectively***Elsie-Sunset Camp-Vernonia rock production project, 12,000 yd. crushed rock in stockpiles, Clatsop, Tillamook, Columbia and Washington Counties, to F. H. McEwen & J. Wilson, Seaside, **$30,355*****Shutler-Condon rock production project on John Day and Wasco-Heppner Hys., 10,300 yd. crushed rock in stockpiles. Gilliam Co., to O. E. Joelson, Eugene, **$25,835*****Newport rock production project on 3 hys., 12,120 yd. crushed rock in stockpiles, Lincoln Co., to T. H. Skelton & H. H. Wiecks, Toledo, **$26,928*****Hermiston rock production project on 4 hys., 15,400 yd. crushed rock in stockpiles, Umatilla Co., to F. R. Hewett Co., 420 22 Ave., Spokane, Wash., **$37,460.** Grand total $178,728. R. H. Baldock, Salem, engr.

†Tex., Karnack—Monsanto Chemical Co., Karnack, hard-paved access road to main plant, to McKinney Constr. Co., Marshall, **$80,000.** Defense Plant Corp. will finance.

EARTHWORK, WATERWAYS

PROPOSED WORK

Illinois—U. S. Eng., 816 U. S. Courthouse & Customhouse, St. Louis 2, Mo., indefinitely postponed bids to have been opened Dec. 19, pumphouse structure, gravity drainage structures, inlet and outlet ditches, fuel tank installation, pump discharge pipe over levee and installation pump. equip. in Spankey Drainage & Levee Dist., Greene Co. CD 12/12—ENR 12/14.

Me., Lewiston—City, P. Wks. Dpt., City Hall, completing plans retaining wall over Canal, Cedar St. $18,000.

Neb., Lincoln—Lancaster Co. Sanitary Dist. 1, widening, deepening Salt Creek Channel, Lancaster Co. $50,000. W. B. Coale, Lincoln, dist. engr.

†Oregon—U. S. Eng., 628 Pittock Block, SW. 10 Ave. and Washington St., Portland, cancelled bids to have been opened Dec. 27, reconstructing south jetty at mouth of Umpqua River, Douglas Co. CD 12/12—ENR 12/14.

Tex., Raymondville — Willacy Co., Raymondville, constructing connecting channel between Gulf Coast Intracoastal Waterway and Raymondville, $100,000 financed; 400x600 ft. deep water port, 4 ft. deep, $150,000. Purefoy & Patterson, Kingsville, engrs.

Alta., Brooks—Ducks Unlimited, c/o R. M. Harley, Edmonton, irrigation development $35,000. W. G. Campbell, Brooks, engr.

LOW BIDDERS

Calif., San Dimas—Bd. Supervs. Los Angeles Co. Flood Control Dist., 751 S. Figueroa St., Los Angeles, Dec. 19, constructing revisions to spillway at Puddingstone Dam, from Pan-American Engineering Constr. Co., 820 Parker St., Berkeley, **$64,103.** CD 11/27—ENR 11/30.

†Idaho—U. S. Eng., 628 Pittock Block SW. 10 Ave. and Washington St., Portland, Ore., Dec. 21, repairing, reconstructing levees and revetments along Snake River at Harrop Slough, from W. C. Burns, Idaho Falls, **$26,620.**

Illinois—Illinois Div. Waterways, 201 W. Monroe St., Springfield, Dec. 21, excavating, cleaning out main ditch of Eldred Drainage and Levee Dist., incl. approx. 81,000 cu. yd. earthwork, Greene Co., from Craig Constr. Co., 328½ W. State St., Sycamore, Proposal 1, **$25,110.** Est. $25,000. CD 12/12—ENR 12/14.

Illinois—Illinois Div. Waterways, 201 W. Monroe St., Springfield, Dec. 12, rein.-con. trash rack and channel change, etc. for Hillview Drainage Levee Dist., from Sangamo Constr. Co., 700 N. MacArthur St., Springfield, **$35,515.**

Louisiana—Bd. Levee Comm., Orleans Levee Dist., Royal and Conti Sts., New Orleans, Dec. 19, approx. 350 ft. levee revetment on west bank of Mississippi River, Orleans Parish, from L. Favret, 937 Gravier St., New Orleans, **$29,945.** CD 12/5—ENR 12/7.

CONTRACTS AWARDED

Arizona—Atchison, Topeka & Santa Fe Ry. Co., M. C. Blanchard, ch. engr. (Coast Lines), 560 S. Main St., Los Angeles, Calif., 100,000 cu. yd. earth and 50,000 cu. yd. rock excav. for channel in Limestone Canyon near Peach Springs and 100,000 cu. yd. preparing stone ballast at Shipley, Mohave Co., to Winston Bros. Co., 411 W. 5 St., Los Angeles, Calif., over **$50,000.**

Mass., Winthrop—Commonwealth of Massachusetts, Metropolitan Dist. Comn., Parks Div., 20 Somerset St., Boston, reconstructing concrete sea wall on Shore Reservation to Coleman Bros. Corp., 245 State St., Boston, **$46,221.** Bids 12/21. CD 12/12—ENR 12/14.

LATIN AMERICA

Argentina—Republic of Argentina, Buenos Aires, plans Curuzu Cuatia-Paso de Los Libres railroad line in Province of Corrientes. 24,200,000 pesos voted. National Transport Bd., c/o Ministry of Public Works, Buenos Aires, engrs.

Argentina, Buenos Aires—Republic of Argentina, Buenos Aires, plans copper concentrate plant. $500,000. Ministry of War, Buenos Aires, engr.

Argentina, Buenos Aires — Republic of Argentina, Buenos Aires, plans by Dpt. Labour & Social Welfare, Buenos Aires, workmen's homes, various parts of republic. 25,000,000 pesos voted.

Argentina, Buenos Aires — Republic of Argentina, Buenos Aires, plans plant producing metallurgical coke. $200,000. Ministry of War, Buenos Aires, engr.

Argentina, Rio Negro—Republic of Argentina, Buenos Aires, plans chlorate, carbide, insecticides and other chemicals production plant. 25,000,000 pesos. General Industrial Dpt., c/o Ministry of Agriculture, Buenos Aires, engr.

Bolivia, La Paz—Republic of Bolivia, La Paz, plans oil refinery. $350,000.

Brazil—Central de Brazil, Rio de Janeiro, plans completing electrification 65 mi. Rio de Janeiro-Barra do Pirai railway line. $400,000.

Brazil, Rio de Janeiro—National Confederation of Industry, Rio de Janeiro, plans titanium-white mfg. plant. $200,000.

Brazil, Rio de Janeiro—Republic of Brazil, Rio de Janeiro, plans warehouses in agricultural districts. $300,000. Architect, c/o Ministry of Agriculture, Rio de Janeiro.

British Guiana, Georgetown — British Guiana Govt., Georgetown, plans drainage and irrigation in Boerasirie-Bonasika Dist. $460,000. G. O. Cox, 16 Robb St., Georgetown, engr.

British Guiana, Hopetown—British Guiana Govt., Georgetown, plans empolder back dam to keep out floods. $60,000. G. O. Cox, 16 Robb St., Georgetown, engr.

British Guiana, Lancaster—British Guiana Govt., Georgetown, new canal with outlet, at Mahaica River to assist drainage. $100,000. G. O. Cox, 16 Robb St., Georgetown, engr.

British Guiana, North Klien—British Guiana Govt., Georgetown, plans bridge construction. $75,000. G. O. Gox, 16 Robb St., Georgetown, engr.

British Guiana, Salem — British Guiana Govt., Georgetown, plans new sea dam. $100,000. G. O. Cox, 16 Robb St., Georgetown, engr.

Chile, Santiago — Sociedad Anonimo Maderera del Sur, Santiago, plans sawmill and plant for manufacturing pre-fabricated houses. $100,000.

LATIN AMERICA (Cont'd.)

Cuba, Baracoa—Academia Internacional Cubana Aerea Marina, S. A., Havana, plans landing fields along north coast. $200,000.

Cuba, Holquin—Pan American Airways System, Antilla, plans landing field, etc. $150,000.

El Salvador, San Miguel—Megovamiento Social S. A., San Miguel, plans cotton thread factory. $100,000.

El Salvador, San Salvador—Republic of El Salvador, San Salvador, plans bldgs. for National University. $900,000. Ministry of Public Works, San Salvador, engr.

Haiti, Port au Prince — Government of Haiti, Port au Prince, plans spinning, weaving, printing, bleaching, dyeing, cotton-textile mill. $300,000.

Mexico — Dpt. Public Works, Maximino Avila Camacho, jefe, Tacuba St., Mexico City, will construct new stretches and repair old sections Mexico-Texcoco-Teziutlan-Nautla hy. with own forces. **$100,000.**

Mexico—Dpt. P. Wks., Maximino Avila Camacho, jefe Calee de Tacub, Mexico City, plans construction on Ciudad Juarez-Mexico City Highway, during 1945. $250,000.

Mexico—Mexican Government, Scrita. de la Economia Nacional, Argentina, 12, Mexico, D. F., plans installing electricity generating plants various parts of state. President Manual Avila Camacho, approved $20,650,000 appropriation during 1945 and 1946 for same.

Mexico, Ciudad Juarez—Ismael C. Falcon, Mexico City, plans horse race track, incl. grandstand, horse sheds, concessions, etc. $100,000.

Mexico, Leon—Federal Electrical Comn., Gustavo P. Serrano, Mexico City, plans electric plant serving city and surrounding towns. $350,000.

Mexico, Mexico City—Jose Clemente, Brasil, 5, Mexico, D.F., plans 350 room hotel. $1,150,000.

Mexico, Mexico City—Film Players Union, Vicainas Poniente, 13 Mexico, D.F., plans by Enrique Molinar Prieto, Chapultepec, 425, Mexico, D.F., sports center. $350,000.

Mexico, Mexico City—La Consolidada SA, Robert Ayres, pres., Mexico City, takes bids within 3 months constructing tool production factories. $500,000.

Mexico, Mexico City—Roman Catholic Committee, Colima, 211, Mexico, D.F., receiving competitive sketches until Apr. 5, for 2,500 persons capacity Roman Catholic Church. $400,000. Francisco J. Serrano, Ramon Guzman, 25, Mexico, D.F., archt., in charge of contest.

Mexico, Mexico City—Secretaria de Marina, Jose Azueta St. No. 9, Mexico City, takes bids early in January, constructing factory. $300,000.

Mexico, Michoacan—Bethlehem Steel Co., Frederick G. J. Stallforth, Mexico mgr., Mexico City, preliminary work underway developing iron deposits in Las Truchas Dist. of Michoacan, incl. dredging harbor at Petacalco Bay and constructing railroads; highways, mining city and housing for workers. $25,000,000.

Mexico, Monterrey—Republic of Mexico, Mexico City, plans tuberculosis sanitorium. $500,000. Dpt. P. Wks., Mexico City, engr.

Mexico, Taxco—Federal Health Secretary, Gustavo Baz, secy. Health Bd., Paseo de Reforma, Mexico City, takes bids early in 1945, constructing water system for Taxco and surrounding towns. $100,000.

Mexico, Torreon—Cia Cervecera de la Laguna S. A., Chihuahua, plans brewery. $260,000.

Mexico, Torreon—State of Coahuila, Lic. Francisco Lopez Serrano, Torreon, plans flood control projects, incl. small dams. $5,000,000.

Netherland West Indies, Sabaneta—Government, Aruba, Curacao, plans schools. 200,000 florin. Bureau P. Wks., Aruba, Curacao, engr.

Netherland West Indes, San Nicolaas—Government, Aruba, Curacao, plans housing. 500,000 florin. Bureau P. Wks., Aruba, Curacao, engr.

Nicaragua—Republic of Nicaragua, Managua, will construct highway from Rama to El Recres, by day labor. **1,000,000** cordobas voted. Ministry of Public Works, Managua, engr.

Panama, Panama City—Fabrica Nacional de Fosforos, Panama City, plans safety match mfg. plant. $70,000.

Panama, Panama City — Government, Panama City, plans by Dpt. P. Wks., Panama City, 400 school bldgs. $3,000,000 appropriated.

Panama, Panama City—Republic of Panama, Panama City, plans electric installations in existing plant. $500,000. Ministry of Health & Public Works, Panama City, engr.

Panama, Panama City—The Asserrado Nacional, Panama City, plans lumber-sawmill, etc. $150,000.

Peru—Blue Goose Oil Co, Pucallpa, plans pipeline from Iquitos to Pucallpa. $75,000.

Peru, Iquitos—Municipality, plans sewerage sys. $150,000. Luis Garcia Torres, City Hall, engr.

Peru, Iquitos—Municipality, WW sys. $100,000. Luis Garcia Torres, City Hall, engr.

Peru, Lima—Republic, Lima, plans developing phosphate deposits in Department of Ica. $500,000. Geological Institute, Lima, engrs.

Venezuela, Barcelona—Republic of Venezuela, Caracas, plans airfield. $150,000.

PUBLIC BUILDINGS

PROPOSED WORK

Ark., Forrest City—Forrest City School Dist., Forrest City, L. Hawley, principal of High School, rebuilding high school. $200,000

†Calif., Bakersfield—Pub. Housing Auth., NHA, 785 Market St., San Francisco, 25 unit family trailer housing, Calif. 4975.

Calif., Clearwater—Clearwater Grammar School Dist., Clearwater, plans by C. K. Denman, 4933 8 Ave., Los Angeles, school bldgs. and school addns. $250,000. Voted bonds Dec. 15.

†Calif., Needles—Pub. Housing Auth., NHA, 785 Market St., San Francisco, 50 unit family dwellings, Calif. 4974.

★**†Calif., San Diego**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., engine test bldg., Spec. 15538, NOY 11209, to Baruch Corp., 625 S. Olive St., Los Angeles, **$519,532.** Bids 12/9.

†Conn., Hartford — Hartford Housing Auth., 846 Asylum Ave., plans Carl J. Malmfeldt & Asso., 36 Pearl St., community bldg., war housing, Nelton Court, for NHA.

†D. C., Wash.—Federal Works Agency, 18 and F Sts. N.W., Wash. 25, D. C., Office Bldg. 5 addn.

†Ga., Waycross—Comrs. Ware Co., W. E. Lee, clk., plans by C. W. Bergen, Liberty Bank & Trust Bldg., Savannah, health center, Ga. 9-346. $45,000.

†Kan., Sunflower Village (P.O. Eudora)—Bd. Educ., Sunflower Village, plans by Marshall & Brown, 114 W. 10 St., Kansas City, Mo., school addn., Kan. 14-249. $178,000. **FWA.**

†Me., Togus—Veterans Admin., Construction Bureau, Vermont Ave. between H and I Sts. N.W., Wash. 25, D. C., recreation bldg. $45,000; brick shop, both at U. S. Veterans Facility.

Okla., Ponca City—City, bond election Jan. 23, municipal hospital addn. $150,000. CD 10/23—ENR 10/26.

★**†Tex., Houston**—Hughes Tool Co., 300 Hughes St., plans expanding plant. $3,000,000. Defense Plant Corp. will finance.

†Tex., Houston—Long Reach Machinery Co., Inc., Gulf Compress Rd., expanding plant. $250,000. Defense Plant Corp. will finance.

★**†Tex., Houston**—McEvoy Co., 600 Milby St., plans expanding plant. $1,000,000. Defense Plant Corp. will finance.

†Tex., Houston—Reed Roller Bit Co., Mack St., expanding plant. $250,000. Defence Plant Corp. will finance.

★**†Tex., Houston**—Shell Steel Co. of Texas, Industrial Rd., expanding plant. $3,000,000. Defense Plant Corp. will finance.

Wash., Bremerton — Consol. School Dist. 100C, Bremerton, plans by Naramore & Brady, Dexter Horton Bldg., Seattle, Zone 4, 5 nursery school bldgs. $150,000. Seeking FWA funds.

Wis., Wausau — Marathon Co., Wausau, plans by Oppenhamer & Abel, Wausau, 3 story, 47x97 ft., rein.-con., brick, tile isolation hospital addn., concrete fdn.

★**Alta., Edmonton**—City, altering, exten. Royal Alexandria Hospital, incl. 50-bed chronic treatment hospital for aged and crippled patients, power plant, east wing, 10-bed addn. to nurse's home, lobby in main entrance, etc. $750,000.

★**Ont., Hamilton**—Dpt. Veteran's Affairs, Ottawa, plans by C. D. Sutherland, Dpt. P. Wks., Ottawa, military hospital, Mountain Park Dr. $850,000.

★**Ont., Ottawa**—Royal Ottawa Sanitorium, Carling Ave., sanitorium exten. $500,000.

Ont., Port Arthur—Port Arthur General Hospital, Court St. N., plans by H. J. Smith, 62 Charles St. E., Toronto, 6 story, wing, bsmnt., brick, rein.-con. hospital addn. $350,000.

BIDS ASKED

Bids Asked Early in January

†Mo., Fort Leonard Wood (St. Louis, P. O.)—Federal Works Agency, 18 and F Sts. N.W., Wash. 25, D. C., 1 story, 50x120 ft., masonry, concrete recreational bldg. $65,000. **FWA.** La Beaume & Klein, 315 N. 7 St., St. Louis, Zone 1, archts.

Bids Asked in January

†Kan., Sunflower Village (P. O. Eudora)—Pub. Bldgs. Admin., 18 and F St. N.W., Wash. 25, D. C., commercial center. $135,000. **FWA.** Neville & Sharp, Midland Bldg., Kansas City, Mo., archts.

Bids Asked in January

†Mo., Normandy (St. Louis 21, P. O.)—St. Vincent's Sanitorium, Sister Margaret, administrator, 7300 St. Charles Rock Rd., Normandy, St. Louis, Zone 21, nurses' home and training facilities for 70 nurses and 2 supervisors, Mo. 23-297N. $173,000. **FWA.** P. M. O'Meara & Associates, 4908 Delmar Blvd., St. Louis, Zone 8, archts. CD 11/13—ENR 11/16.

Bids Asked in January or February

Mo., Webster Groves (St. Louis, Zone 19, P. O.)—School Dist. of Webster Groves. Bd. Educ., F. L. Wright, pres., 42 Selma Ave., Webster Groves, St. Louis, Zone 19, 2 story, bsmnt., brick, concrete school. $267,000. Wm. B. Ittner, Inc., 408 Bd. Educ. Bldg., 911 Locust St., St. Louis, Zone 1, engrs. and archts. CD 12/12—ENR 12/14.

Bids Asked January 8

Ont., Islington—H. Duern, secy. Bd. Trustees Etobicoke High School, Montgomery Rd., brick, tile high school addn. $175,000. S. B. Coon & Son, 4 St. Thomas St., Toronto, archts.

Bids Asked January 9

★**†Mo., Kansas City**—St. Luke's Hospital, 44 and Mill Creek Sts., nurse's home, near 44 St. and Bway., Mo. 23-286-N. $640,000. **FWA.** Keene & Simpson, 1005 Land Bank Bldg., archts. E. Pfuhl, structural engr. and W. L. Cassell, mechanical engr., both 912 Baltimore St. CD 10/11—ENR 10/19.

Bids Asked January 11

La., Pineville—State, Dpt. Finance, Capitol Annex, Baton Rouge, steam laundry bldg. on property State Colony and Training School, Purchase Requisition No. 36782 C.E.E. Plans deposit $15. Dpt. Engineers, Capitol Annex Bldg., Baton Rouge, engrs. CD 7/17—ENR 7/20.

N. J., Skillman—Dpt. Institutions & Agencies, Trenton, dormitory at State Hospital.

N. J., Woodbine—Dpt. Institutions & Agencies, Trenton, dormitory at State Hospital. $50,000.

†N. C., Morehead City—Federal Works Agency, 606 State Planters Bank Bldg., Richmond 19, Va., 3 story addn. Morehead City Hospital, NC 31-292. $179,000. **FWA.** G. W. Carr, Durham, archt. CD 12/19—ENR 12/21.

Bids Asked January 11

N. J., Vineland—Dpt. Institutions & Agencies, Trenton, dormitory at State Hospital. $50,000.

Bids Askked January 15

†Ga., Warm Springs—Georgia Warm Springs Foundation, at office H. J. Toombs, archt., 706 Peters Bldg., Atlanta, hospital addn., Ga. 9-345-N. **FWA.** CD 12/8—ENR 12/14.

Bids Asked About January 17

†Calif., Oxnard—Oxnard School Dist. of County of Ventura, school, Calif. 4-653. **FWA.** R. C. Wilson, Santa Paula, archt. CD 10/13—ENR 10/19.

LOW BIDDERS

†Calif., San Diego—Pub. Housing Auth., NHA, 760 Market St., San Francisco, Dec. 16, 100 unit housing, Linda Vista, near here, Calif. 4902-N, from Dentzel & Whyte, 825 S. Date St., Alhambra, **$255,900.** CD 10/9—ENR 10/12.

★**Conn., Rocky Hill**—State Comptrollers Office, State Capitol, Hartford, Dec. 22, infirmary bldg. addn., alterations, Veterans Home, from A. E. Stephens Co., 1200 Main St., Springfield, Mass., **$699,700.** CD 11/27—ENR 11/30.

†Ga., Atlanta—Federal Works Agency, 18 and F St. N.W., Wash. 25, D. C., Dec. 21, nurses' home, Grady Hospital, Ga. 9-28, from A. K. Adams Engr. & Contg. Co., 543 Plum St., N.W., **$321,400.** CD 12/5—ENR 12/7.

†Kan., Sunflower Village (RFS Eudora)—Pub. Bldgs. Admin., 18 and F Sts. N.W., Wash. 25, D. C., Dec. 19, 1 story, concrete block recreation bldg., Kan. 14-263, from Swenson Constr. Co., Inc., 3305 Terrace St., Kansas City, Mo., **$150,000. FWA.** CD 12/6—ENR 12/14.

†Mich., Hamtramck (br. Detroit)—Sister Mary Bernardine, 3411 Evaline St., Zone 12, Nov. 17, brick, steel, stone, rein.-con. Holy Cross Hospital, Mich. 20-342-N, from Spence Bros., 203 Brewer Arcade, Saginaw, **$476,700. FWA.** CD 10/31—ENR 11/2.

†Utah, Tooele—U. S. Eng., 1209 8 St., Sacramento 8, Calif., installing sprinkling sys. in warehouses in Tooele Ordnance Depot, Spec. 1013, from Beeson Bros. Engineering Co., 1400 N. Spring St., Los Angeles, Calif., **$399,980.**

CONTRACTS AWARDED

★**†Calif., San Francisco**—Pub. Housing Auth., 760 Market St., 435 unit family dwellings, off Bayshore Hy., near Geneva Ave., Calif. 4896 N, to De Luca & Son, Inc., 1745 Filbert St., **$1,079,000.** CD 12/22—ENR 12/28, under LB.

COMMERCIAL BUILDINGS

PROPOSED WORK

Ill., Belleville—Wolff Constr. Co., 913 Chestnut St., St. Louis, Zone 1, Mo., 25 four and 5

COMMERCIAL BLDGS. (Proposed Work, Cont'd.)

room frame dwellings, concrete fdns., vicinity Scott Field, near here, own forces. $150,000.

O., Cleveland—Christ Evangelical Lutheran Church, Rev. E. Malbow, pastor, 3271 W. 43 St., sketches completed by H. A. Fulton, 6014 Euclid Ave., 3 story, 99x102 ft., brick, steel, concrete school. $175,000.

Pa., Franklin—Kayton Entertainment Co., L. T. Houghton & P. McKay, co-owners, Franklin, plans by V. A. Rigamount, 5471 Coral St., Pittsburgh, 2 story, bsmnt. theatre. $150,000.

Pa., Pittsburgh—St. Canice R. C. Parish, Rev. John A. Fallon, pastor, in charge, 222 Orchard Pl., plans by L. McMullin, 904 Renshaw Bldg., 2 and 4 story, brick parochial school. $150,000.

Man., Winnipeg—Ukrainian Greek Catholic Church, Winnipeg, cathedral. $150,000.

Ont., Fort Williams—Avenue Hotel, Ltd., Victoria Ave., Fort William, hotel. $150,000.

Ont., Ottawa—E. S. Sherwood, 140 Wellington St., plans by W. E. Noffke, 46 Elgin St., office, O'Connor and Queen Sts. $200,000.

★ **Ont., Toronto**—Queen Elizabeth Hospital, Bd. Governors, 120 Dunn Ave., E. W. Bickle, chn., 25 King St. W., plans by E. R. Arthur, 20 Montclair Ave. and Marani & Morris, 46 Bloor St. W., 6 story, bsmnt., rein.-con., brick hospital addn. $600,000.

Que., Montreal—Montreal District Savings Bank, 262 W. St. James St., bank, Belanger and W. Ste. Catherine Sts. $175,000.

Que., Quebec City—Roman Catholic Parish of St. Jean Baptiste, c/o Rev. E. Martel, 448 St. John St., community centre, incl. auditorium, bowling alley, etc. $150,000.

Que., Quebec City—Roman Catholic Parish of St. Sauveur, c/o Rev. A. Menard, 15 Oblate Ave., plans by P. E. Mathieu, c/o owner, community centre, incl. auditorium, bowling alley, etc. $150,000.

BIDS ASKED

Bids Asked After January 1

Tex., Beaumont—W. B. Livesay, archt., San Jacinto Life Bldg. Annex, and Stone & Pitts, archts., Goodhue Bldg., 5 story, 60x112 ft., with two 57x80 ft. wings, brick, concrete office and stores bldg., for H. A. Peristein, Peristein Bldg. $225,000. CD 12/19—ENR 12/2.

Bids Asked January 20

Que., Sillery (Postal Dist. Quebec City)—C. A. Jean, archt., 2 Abraham Hill, Quebec City, church and presbytery, for R. C. Parish of St. Charles-Garnier, Sillery. $250,000. CD 11/17—ENR 11/23.

Bids Asked

R. I., Providence—St. Johns Ukranian Church, Public St., 1 story, bsmnt., with 2 wings, brick, stone church. $150,000. Di Mitri & Di Mitri, 187 Farmington Ave., Cranston, archts. CD 12/4—ENR 12/7.

CONTRACTS AWARDED

Ga., Atlanta—Sissons Estate, D. L. Stokes & Co., Volunteer Bldg., fifty 5 room, brick, frame houses, day labor. **$200,000.**

Tex., Houston—Mensco Inc., 4415 N. Roseneath St., 17 brick veneer, sheetrock dwellings, concrete fdns., etc., force account. **$150,000.** J. Knostman, 2017 W. Gray st., archt.

Tex., Laredo—J. R. Newton, Brownwood, 32 dwellings, force account. **$175,000.** E. T. Glasgow, 308 Petroleum Bldg., Fort Worth, archt. **CD 12/19—ENR 12/21.**

INDUSTRIAL BUILDINGS

PROPOSED WORK

Ark., Hazen — SUB-STATION — Arkansas Power & Light Co., Simmons Natl. Bldg., Pine Bluff, electric power sub-station. **$75,000.**

★ **Calif., South Gate**—FACTORY—General Motors Corp. (Southern California Div.), 704 W. Olympic Blvd., Los Angeles, factory addn. and reconversion existing bldg., rein.-con. and structural steel, 2700 Tweedy Blvd. $650,000. Argonaut Realty Div., 307 General Motors Bldg., Detroit, Mich., archt.

Conn., Fairfield—SHOP and SERVICE GARAGE—Seaboard Freight Lines, Inc., State St. exten., revising plans 1 story, bsmnt. 75x150 ft., concrete, steel shop and service garage. Fletcher Thompson, Inc., 211 State St., Bridgeport, engrs. Bids 12/12 rejected. CD 12/7—ENR 12/14.

Conn., Hartford—WAREHOUSE—Owner, c/o J. Berenson, archt., 48 Forest St., 100x110 ft., brick, steel warehouse. $75,000.

Conn., Norwalk — FACTORY — Norwalk Tire & Rubber Co., Winnipaug, Norwalk, plans completed and bids soon 80x100 ft., rein.-con., brick factory. $60,000. Fletcher Thompson, Inc., 211 State St., Bridgeport, engrs. CD 12/18—ENR 12/21.

Mass., Dorchester (sta. Boston)—PLANT—Boston Ice Co., 268 Heath St., Roxbury, plans by H. L. Feer, 27 School St., Boston, artificial ice mfg. plant. Over $40,000.

★ **Mont., Conrad**—MILL—Ellison Milling & Elevator Co., Layton, Utah, 600 bbl. flour mill. $500,000.

★ **N. H., North Rochester** — PLANT — Spaulding Fibre Co., Inc., North Rochester, rebuilding fibre plant. $750,000. F. L. Smith, 21 E. 40 St., New York, N. Y., engr. CD 11/17—ENR 11/23.

N. Y., Jamestown—PLANT—Fashion Clothes, M. Goldman, mgr., 14 N. Main St., 1 story clothing mfg. plant addn., 42 Taylor St. $40,000 with equip.

★ **O., Cleveland** — SMELTING — Ferro Enamel Corp., R. Weaver, pres., 4150 E. 56 St., smelting bldg. addn. $500,000.

O., Cleveland—PLANT—General Chemical Co., W. H. Winters, mgr. of construction, 40 Rector St., New York, N. Y., and J. McWhister, plant supt., Warner Rd., expanding sulphuric acid plant. $315,000.

Ore., Parkdale—WAREHOUSE, etc.—Duckwall Bros., Inc., Parkdale, plans by Claussen & Claussen, Guardian Bldg., Portland, reconstructing warehouse and packing plant. $43,000.

Tex., Houston—SHOP—G. Reddock, 1817 Forrest Hill St., soon lets contract 1 story, 80x110 ft., steel frame, mechanical shop, concrete fdn. $40,000.

Tex., Mission — PLANT — M. Hutchison, Mission, bids soon 1 and 2 story, frame, sheet metal packing plant, near here.

Tex., Pharr — PACKING PLANT — Texas Products Co., c/o C. Everhard, Pharr, bids soon 1 and 2 story, brick, rein.-con., frame and sheet metal packing plant, rein.-con. fdn. $150,000.

Utah, Nephi—MILL—Bailey-McCune Co., Nephi, plans and specifications by Western Belting & Equip. Co., 2600 S. Santa Fe Ave., Vernon, Calif., feed and processing mill. $50,000.

W. Va., Page—MINING PLANT—Page-Pocohontas Coal Co., Page, rebuilding coal mining plant; facilities. Over $50,000.

Wis., Fond du Lac—FACTORY—Damrow Bros. Co., Western Ave., plans by F. J. Stepnoski & Son, 104 S. Main St., 1 story (ultimately 4 story) 120x200 ft., steel, brick factory.

Wis., Milwaukee—FACTORY, etc.—P & V Atlas Industrial Center, Inc., 647 W. Virginia St., plans by F. F. Drolshagen, E. 47 W. Virginia St., Zone 4, 2 story, irregular sized, steel, brick, hollow tile factory and warehouse addn. Inland Sugar Co., 730 W. Oregon St., lessee.

Wis., Milwaukee—FREIGHT TERMINAL—Steffke Freight Co., 710 W. Virginia St., plans by H. I. Messmer, 231 W. Wisconsin Ave., Zone 3, 1 story, 104x150 ft., concrete block freight terminal, concrete fdn.

Ont., Augusta—PLANT—Maitland Development Co. Ltd., Augusta, plant for production sensitized paper by impregnation, mfg. fishing hooks, etc.

Ont., Bradford—PLANT—Bradford Co-operative Storage Co., Bradford, co-operative storage plant. $100,000.

Ont., Cobourg—SAWMILL, etc.—Cobourg Lumber Co., Inc., Cobourg, sawmill, etc. $40,000.

Ont., Cochrane—PLANT—Cochrane Farmers Co-operative, Inc., Cochrane, cereal fruits, vegetable processing plant. $40,000.

Ont., Dundas—PLANT—McMaster Pottery Ltd., Dundas, ceramic art and kindred products mfg. plant. $40,000.

Ont., Galt—FACTORY—Galt Knitting Co. Ltd., 7 Water St., plans by Prack & Prack, 36 S. James St., Hamilton, factory addn. $40,000.

Ont., Long Branch (Postal Dist. Toronto)—FOUNDRY—E. I. Davidson, archt., Excelsior Bldg., Toronto, soon lets contract, foundry, for Sully Brass Foundry Ltd., 7 Wabash St., Toronto. $50,000.

Ont., Stratford — FACTORY — Syndicate, c/o Alderman R. W. Hardwick, City Hall, factory. $40,000.

Ont., Toronto—PLANT—Bouvier Envelopes Ltd., c/o W. R. Salter, 112 Yonge St., envelope, stationery, paper, office supplies, etc. mfg. plant. $50,000.

Ont., Toronto—PLANT—Crowshore Patricia Gold Mines Ltd., 171 Yonge St., shaft and mining plant. $70,000. C. D. Salkeld, c/o owner, engr.

Ont., Toronto—FACTORY—Kiener & Co. Canada Ltd., 52 Dickens St., 1 story, 80x100 ft., concrete factory, concrete fdn. $40,000.

Ont., Toronto—FACTORY—E. Sherrat & Sons Toy Co., Inc., 155 George St., factory. $40,000.

Ont., Toronto—FACTORY, etc.—Jos. Steinberg, c/o M. Reingold, 88 Richmond St. W., plans by I. M. Saunders, 26 Queen St. E., factory, office and warehouse bldg. $75,000.

Ont., Toronto—FACTORY—Strong Printing Plates, Ltd., 157 George St., factory. $40,000.

Ont., Toronto—FACTORY—United Felt Products Ltd., 1 Wiltshire Ave., plans by E. I. Richmond, 455 Spadina Ave., factory. $40,000.

Ont., Woodstock—PLANT—Canada Casters Ltd., Woodstock, exten. for tool and die mfg. department and metal stamping factory addn. $50,000.

Quebec—PLANT—Zephyr Looms & Textiles Ltd., Guelph, plans by H. R. Wiggs, 660 W. Ste. Catherine St., Montreal, 1 story textile plant. $75,000. G. L. Wiggs & Co., 660 W. Ste. Catherine St., Montreal, engrs.

Que., Beauport—FACTORY—Meubles Grenier Furniture Inc., Beauport, furniture mfg. plant. $40,000.

Que., Bourlamaque—SHAFT SINKING, etc.—New Bidlamaque Gold Mines Ltd., Bourlamaque, shaft sinking, etc. $105,000.

Que., Chicoutimi — PLANT — Gagnon & Frere Meubles Ltd., Chicoutimi, furniture, household adornments, etc. mfg. plant. $40,000.

★ **Que., Joliette**—FACTORY—Fry-Cadbury, Ltd., 2025 Masson St., Montreal, factory. $1,000,000.

Que., Montreal—PLANT—Acme Electric & Mfg. Co. of Canada, Ltd., c/o Roger Lacoste, K.C., 221 W. St. James St., plant. $50,000.

Que., Montreal—FACTORY—Auto Fabric Products Co. Ltd., 1598 Clark St., plans by architect, c/o T. F. Rose, 1598 Clark St., factory. $40,000.

Que., Montreal—PLANT—Dryden Paper Co. Ltd., Canada Cement Bldg., completing plant modernization program. $178,000.

Que., Montreal—FACTORY—Fashions Preferred Ltd., c/o J. Liebman, 423 Mayor St., factory. $40,000.

Que., Montreal—FACTORY—General Footware Co. Ltd., c/o J. Helae, 159 W. Craig St., factory. $40,000.

Que., Montreal—PLANT—L-F Automotive Inc., c/o J. Trudel, K.C., 152 E. Notre Dame St., trucks, taxis, etc. mfg. plant. $40,000.

Que., Montreal—PLANT—Maisoneuve Shoe Supply Co. Ltd., c/o G. H. Semple, 204 W. Notre Dame St., shoe supplies and shoe findings mfg. plant. $50,000.

Que., St. Hyacinthe—MACHINE SHOP, etc.—St. Armand Machine Shop Co., Ltd., 780 des Cascades St., machine shop and factory. $40,000.

Que., Valleyfield — PLANT — Merck & Co., Ltd., R. I. Hendershott, pres., 560 de Courcelbes St., Montreal, chemical mfg. plant at Grande Ile, near here. $200,000.

Sask., Swift Current—PLANT—Horse Co-Operative Marketing Assn., Swift Current, horse processing plant. $150,000.

BIDS ASKED

B. C., Cloverdale—MILL, etc.—McCarter & Nairne, archts., Marine Bldg., Vancouver, 6 story feed mill, 3 story warehouse, and elevator, for Surrey Co-Operative Assn., Cloverdale. $175,000. CD 8/15—ENR 8/17.

LOW BIDDERS

Tex., Houston—FREIGHT DEPOT—International & Great Northern Railroad Co., C. S. Kirkpatrick, ch. engr., Union Station, Dec. 16, freight depot, from Schneider Constr. Co., 3004 W. Dallas St., **$109,000.** CD 12/15—ENR 12/21.

CONTRACTS AWARDED

Calif., El Segundo—REFINERY—Standard Oil Co. of Calif., El Segundo Plant, El Segundo, 1 story, 75 x 154 ft. with 43 x 44 ft. ell cafeteria bldg., to McNeil Constr. Co., 5860 Avalon Blvd., Los Angeles, approx. **$200,000.** Austin Co., 777 E. Washington Blvd., Los Angeles, archts. Bid 11/20, awarded 12/12. CD 8/9—ENR 8/17.

Calif., Los Angeles—CHEMICAL PLANT—Western Electro-Chemical Co., 2650 E. Washington Blvd., 90 x 100 ft., structural steel, concrete chemical plant, to Bechtel-McCone Corp., 601 W. 5 St., approx. **$53,000.** R. W. Phelps, 601 W. 5 St., engr.

Conn., New London—SERVICE STATION—Roger Motors Co., H. A. Schaller, prop., 939 Bank St., 1 story 80x80 ft., with 30x40 ft., brick, concrete, structural glass auto service garage, showroom and oil and gasoline services. Owner builds. **$40,000.** George L. Bilderbeck, Inc., 76 Starr Hill Rd., Groton, archts. CD 9/28—ENR 10/5.

Me., Auburn—PLANT—F. W. Winter, 29 2 Ave., altering 4 story, bsmnt., 50x300 ft. bldg. for refrigeration plant, Railroad St. Owner builds. Est. **$110,000.** CD 11/28—ENR 11/30.

Mass., Worcester — FACTORY — Pullman Standard Car Mfg. Co., 27 W. Mountain St., factory addns., alterations, 1 story, 50x280 ft., steel, frame Bldg. 11, 1 story, 60x60 ft. Bldg. 13, 1 story, 30x40 ft., Bldg. 3, altering 90x400 ft. Bldg. 3, and 1 story, 13x30 ft. office bldg., to Sumner S. Sollitt Co., 307 Michigan Ave., Chicago, Ill., **$168,500.** F. Stanton, archt., and J. R. Boeringer, engr., both 307 Michigan Ave., Chicago, Ill.

Mo., St. Louis—WAREHOUSE—Ziegenbalg & Co., 1814 N. Vandeventer Ave., Zone 13, 2 story, bsmnt., 28x50 ft., brick, concrete warehouse, stone fdn., to Woermann Constr. Co., 3800 W. Pine Blvd., Zone 8, Est. **$40,000** with equip. E. Lantz, 115 N. Price Rd., Clayton, St. Louis, Zone 5, archt.

O., Cleveland—SHOP—Rockport Pattern Co., c/o Hines Mfg. Co., J. F. Hines, pres., 1324 Hird Ave., 1 story, 60x240 ft. and 40x85 ft., brick, steel, pattern shop, to Esch Const. Co., Caxton Bldg. Est. **$75,000.**

Ore., Oregon City—WAREHOUSE—Clackamas Wholesale Grocery Co., Oregon City, food warehouse to Clarence Gilmer, Spalding Bldg., Portland, **$53,395.** Awarded 12/23. CD 12/15—ENR 12/21.

Ore., Springbrook—PLANT—Springbrook Packing Cooperative, Springbrook, cold storage plant, day labor. **$90,000.** CD 12/5—ENR 12/7.

INDUSTRIAL BLDGS. (Contracts Awarded, Cont'd.)

Pa., Port Allegany — FACTORY — Pierce Glass Co., Howard Herger, pres., rebuilding 1 story, 50x200 ft., and repairing 2 story, bsmnt., 60x124 ft. glass factory, to Frazier Simplex, Inc., 436 E. Beau St., Washington. Est. **$40,000.**

R. I., Bristol—FACTORY—Bristol Mfg. Corp., Buttonwood Ave., 1 story, 86x97 ft., brick factory addn., to J. P. Flynn, 112 Lenox Ave., Providence. Est. **$40,000.** L. A. Gardiner, 49 Hanover St., Providence, archt.

Tex., Dallas—SHOP—L. R. Kopahl, 6102 Revera Dr., brick, tile, concrete shop, to T. L. Lawhorn, 715 Clermont St., approx. **$41,000.** Est. $45,000. CD 12/19—ENR 12/21.

Tex., Dallas—WAREHOUSE—Gus B. Volkus, 1814 Allen Bldg., warehouse, to F. McClure, 808 Good St., approx. **$40,000.** CD 12/19—ENR 12/21.

Tex., Dallas—WAREHOUSE—W. B. Williams, 2210 Lamesa St., 1 story, 125x266 ft., brick, concrete warehouse, to E. V. McCright & Co., 2210 Lamesa St. **$55,000.**

Tex., Harlingen—PLANT—A. W. Lyons Poultry & Egg Produce Co., 1 story produce plant, day labor. **$40,000.** CD 12/12—ENR 12/14.

★**Tex., Houston**—PLANT—Shell Oil Co., Inc., Shell Bldg., fluid catalytic high-octane gasoline refining plant, auxiliary gas plant for recovery hydrocarbons, addnl. water-cooling towers, installing gas lines and oil and by-product lines, addn. water sys. at refinery plant, all at Deer Park, to Foster Wheeler Corp., Shell Bldg., Houston, C. F. Braun & Co., 1000 S. Fremont Ave., Alhambra, Calif., and Fluor Corp. Ltd., 2500 Atlantic Blvd., Los Angeles, Calif., **$11,285,000.** CD 12/19—ENR 12/21.

Tex., La Feria—PLANT—Inter-State Fruit & Vegetable Co., La Feria, citrus and fruits packing plant unit, force account. **$43,000.** CD 12/12—ENR 12/14.

Tex., McAllen—PROCESSING PLANT—L. H. Moore Canning Co., McAllen, 1 and 2 story, brick, tile, concrete processing plant, day labor. **$44,000.** CD 8/13/43—ENR 8/19/43.

Tex., McAllen—PLANT—Reagan Canning Co., 17 N. 22 St., 1 and 2 story citrus and vegetable processing plant, day labor. **$40,000.** CD 11/8—ENR 11/11.

Tex., San Juan—SHOP, etc.—Wax-Pax Co., N. Shary Rd., Mission, 2 story, stucco, concrete shop and storage bldg., to J. C. Doedyns, San Juan, **$40,000.** CD 12/19—ENR 12/21.

Tex., Weslaco—PLANT—Gulf Fruit & Vegetable Co., Weslaco, 1 and 2 story, brick, rein.-con., metal processing plant, day labor. **$40,000.** CD 12/20—ENR 12/28.

Tex., Weslaco—PLANT—Rio Texas Products Co., Weslaco, 1 and 2 story citrus and vegetable packing plant unit, day labor. **$40,000.** CD 12/28.

Tex., Weslaco—PLANT—Verhalen, Inc., Weslaco, citrus and vegetable packing plant, day labor. **$40,000.** CD 12/22—ENR 12/28.

Wash., Seattle—FREIGHT HOUSE—Great Northern Ry. Co., C. M. Nye, ch. engr., 175 E. 4 St., St. Paul, Minn., altering, repairing freight house, 201 King St., to Atherton Constr. Co., Terminal Sales Bldg., Seattle, Zone 1. Est. **$60,000.** M. O. Sylliaasen, Dexter Horton Bldg., Zone 4, engr.

Wis., Green Bay—PLANT—Firestone Tire
: Rubber Co., Green Bay, 1 story, 40x150
., rein.-con., steel beam, concrete block
e recapping plant, concrete fdn., to W.
n Ess, 1100 Velp Ave. R. W. Surplice,
y Center Bldg., archt.

orth West Territory, Yellowknife—DIA-
ND DRILLING—Jackknife Gold Mines,
., Yellowknife, diamond drilling, to Gen-
l Engineering Co., 100 W. Adelaide St.,
onto, Ont., **$55,000.**

nt., Toronto—PLANT—Canada Decalco-
ia Co. Ltd., 511 E. King St., modernizing
t, day labor. **$40,000.**

nt., Toronto—WAREHOUSE, etc.—H. J.
z Co. of Canada Co. Ltd., 115 George St.,
ehouse and office bldg., to M. S. Soules,
Temple Bldg., Bay and Richmond Sts.,
$100,000. Margison & Babcock, New
ngton Bldg., 137 Wellington St. W.,
CD 12/7—ENR 12/14.

Montmagny—FACTORY—M. E. Binz
l., 423 Mayor St., Montreal, remodel-
t, day labor under supervision Pierre
Montmagny. Est. **$40,000.** H. G.
on, 1434 W. Ste. Catherine St.,
archt. CD 6/15—ENR 6/22.

Iontreal — FACTORY — Decorative
g. Co. Ltd., 262 Ontario St., factory,
artier, 2 Bellechasse St. Est. **$40,-**
/7—ENR 6/22.

emiskaming—PLANT—Can. Inter-
Paper Co. Ltd., Sun Life Bldg.,
, 25 x 70 ft. plant addn., day labor.
Somerville & Shore, 30 W. Bloor
onto, Ont., **archts.**

UNCLASSIFIED

OSED WORK

lif., San Pedro—DRY DOCK—Con-
idated Steel Corp., 5700 S. Eastern Ave., Los Angeles, installing 14,000 ton dry dock between berths 136 and 137 A. Over $500,000.

†**Ga., Rome**—AIRPORT IMPROVEMENTS—Civil Aeronautics Admin., 84 Marietta St. N.W., Atlanta, indefinitely postponed bids to have been opened Dec. 15, constructing addnl. drainage, installing subdrains, fertilizing, liming and seeding, fencing and lighting airport, Code 9-09-040. CD 12/5—ENR 12/7.

La., Kenner—ELECTRIC SUPPLY LINES—City of New Orleans, City Hall, New Orleans, electric supply lines, other utilities, Moisant Airport. Moise H. Goldstein & Associates, American Bank Bldg., New Orleans, and H. Benson, Canal Bank Bldg., New Orleans, archts.

★**Missouri** and **Oklahoma** — RAILROAD TRACK, etc.—St. Louis-San Francisco Ry. Co., F. G. Jonah, ch. engr., 906 Olive St., St. Louis 1, Mo., 3 mi. track near Hancock, Mo., removing steep grades, laying 69 mi. new rail; track repairs, etc. along system, est. $3,310,936; also installing 126 mi. automatic block signals in Oklahoma.

★**Missouri** — RAILROAD SYSTEM IMPROVEMENTS—St. Louis-San Francisco Ry. Co., F. G. Jonah, ch. engr., 906 Olive St., St. Louis, Zone 1, railroad sys. addns., imprvs. incl. installing heavier rails at some points, new bridges, overhauling some rolling stock, etc. $2,911,907.

★**Nebraska** — TRANSMISSION LINES — Custer Public Power Dist., Broken Bow, 1,100 mi. transmission lines, Custer Co. $1,000,000.

N. C., Charlotte—RADIO STATION—W S O C Inc., E. Gluck, pres., 1925 N. Tryon St., radio station expansion, changing frequency from 1,240 to 1,550 kilocycles and power from 250 watt to 100 kilowatts new transmitter and directional antenna.

Ore., Portland—CRYPT CORRIDOR, etc.—Lincoln Memorial Park Co., 10500 S. E. Mt. Scott Blvd., plans by J. W. Heller, 323 S. W. 5 Ave., crypt corridor and center sect. at mausoleum. $74,000.

Pa., Pittsburgh — TRANSMITTING STATION, etc.—W W S W Inc., F. R. Smith, pres., Hotel Keystone, transmitter bldg. and unit antennas, Rising Main St., Pittsburgh, and 500 watt transmitting station, Stowe Twp. $100,000.

†**Texas**—AIRFIELD BLDG. CONVERSION—U. S. Eng., Fort Sam Houston, bids soon Serial No. W-41-154-45-68, converting 2 bomb trainer bldgs. at Midland, Big Springs and San Angelo, incl. remodeling, converting 2 OBH-2 hangar bldgs. at each of above posts, installing partitions, and ceiling to form 2 dark rooms, inside each hangar, etc.

Texas—POWER TRANSMISSION LINES—Choctaw Electric Cooperative, Hugo, rural electric power transmission lines, Choctaw Co. $100,000.

Tex., McAllen—BOY SCOUT CAMP—Rio Grande Valley Boy Scout Council, c/o C. Robinson, McAllen, boy scout camp, incl. grounds development, swimming pool, storage house, etc. $75,000 financed.

Tex., Raymondville—DOCK FACILITIES—Willacy Co., dock facilities. $100,000. Engineer, c/o County Eng. Branch and Puerfoy & Patterson, Kingsville, engrs. CD 9/7—ENR 9/14.

Wash., Longview—FIRE ALARM SYSTEM—City, City Hall, bids soon, fire alarm sys. $30,000. Gamewell Co., Newton Upper Falls, Mass., engr. H. H. Clark, City Hall, fire chief.

Man., Winnipeg — TRANSMISSION LINES—Manitoba Power Comn., 146 Notre Dame Ave. E., transmission lines through district of Gnadenfeld, Neubergthal and Summerfield. $45,000.

Ont., Deseronto—SKATING RINK—Chamber of Commerce, G. Walker, secy., artificial ice plant skating rink, $40,000.

Ont., Gananoque — LIGHTING SYSTEM, etc.—Parmenter & Bullock, Ltd., 7 Clarence St., lighting sys. providing service to new housing development, $30,000, Gore & Storrie, 1130 Bay St., Toronto, engrs.; 7 acre athletic field, ¼ mi. race track, $35,000.

Ont., Kingston—SPORTS CENTRE—City, W. Watts, chn. Com., plans by Drever & Smith, 81 Brock St., sports centre at Fair Grounds. $300,000. CD 8/17—ENR 8/31.

Ont., Lindsay—SWIMMING POOL, etc.—Can. Legion c/o Col. R. I. Moore, Lindsay, plans swimming pool, etc. $70,000.

Ont., Norval—SKATING RINK—Municipality, 85x190 ft. skating rink, artificial ice plant. $40,000.

P. E. I., Charlottetown—COMFORT STATION—Municipality, comfort station, 1st on Queen's Sq. $25,000.

Que., Bagotville — WHARF — Dominion Govt., Ottawa, Ont., wharf. $35,000. K. M. Cameron, Dpt. P. Wks., Ottawa, engr.

BIDS ASKED

Bids Asked January 8

N. Y., New York—SPRINKLER SYSTEM—Comr. Parks at office Dpt. Parks, Arsenal Bldg., Central Park, 64 St. and 5 Ave., New York, Zone 21, altering sprinkler sys. in American Museum of Natural History, Manhattan Sq. Park, Contr. M-53-644.

Bids Asked January 11

†**S. C., Charleston**—SIGNAL AND ALARM SYSTEM—U. S. Eng., Post Office Bldg., Savannah, Ga., furnishing, installing nurse's signaling and alarm sys. at Stark General Hospital, STAR 8-45.

Bids Asked January 15

B. C., Esquimalt—DOCKYARD IMPROVEMENTS—Secy. Dpt. Munitions & Supply, Ottawa, Ont., dock imprvs., incl. Rectifier Bldg. 172, refitting and dockyard jetties wharf services, for Dpt. Natl. Defense (Sea), Ottawa, Ont. Est. about $40,000.

LOW BIDDERS

†**Ariz., Flagstaff**—SPRINKLER SYSTEM, etc.—U. S. Eng., 751 Figueroa St., **Los** Angeles 14, Calif., Dec. 20, sprinkler **sys.** and firewalls at Navajo Ordnance Depot, No. 50, from George E. Kerns, 5574 Atlantic Blvd., Long Beach, Calif., **$335,588.**

†**Calif., Stockton**—LOADING RAMPS—U. S. Eng., 1209 8 St., Sacramento, Zone 8, Dec. 20, loading ramps, addnl. railroad spur at Stockton Ordnance Depot, Spec. 1020, from C. E. Kennedy, 305 E. Weber St., **$25,709.**

†**Me., Presque Isle**—HANGARS—U. S. Eng., 31 St. James Ave., Boston, Mass., Dec. 22, 2 hangars at airport, Spec. 19-023-45-NEG 67, from T. W. Cunningham, Inc., 84 Harlow St., Bangor, **$42,700.**

CONTRACTS AWARDED

†**Del., Fort Miles (P. O. Lewes)**—WHARF—U. S. Eng., 120 Wall St., New York 5, N. Y., repairing wharf, to George & Lynch, Delaware Trust Bldg., Wilmington, **$32,405.** Bids 12/14.

†**Fla., Pensacola**—AIR STATION BLDG.—Yards & Docks, Navy Dpt. 18 St. and Constitution Ave. N.W., Wash. 25, D. C., exten. plane and engine overhaul shop, Naval Air Station, NOY 11034, to Foster & Creighton Co., American Natl. Bank Bldg., Nashville 3, Tenn. **$63,600.**

Kan., Kansas City—PARKING LOTS, etc.—City, H. Payne, clk., imprv. 3 parking lots, incl. grading, curbing, retaining walls, steps, sidewalks, paving, traffic markers, drainage, flood lighting, to J. A. Tobin Const. Co., 3700 Rainbow Blvd., **$69,973.** Bids 12/7. T. Schlup, city engr.

†**Md., White Oak**—FENCE—Yards & Docks, Navy Dpt. 18 St. and Constitution Ave. N.W., Wash. 25, D. C., fence, Naval Ordnance Laboratory, NOY 11336, to T. Calvin Owens, 412 Albee Bldg., Wash., D. C., **$81,720.**

Missouri—TRANSMISSION LINES—Nodaway-Worth Electric Co-op., Maryville, 103 mi. transmission lines, Nodaway Co., to A A Electric Co., Cicero, Ill., **$94,000.** CD 9/11—ENR 9/14.

†**Nev., Lovelock**—FACILITIES—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., developing facilities, NOY 11389, to Dinwiddie Constr. Co., 210 Crocker Bldg., San Francisco, Calif., **$74,600.** Bids 12/15.

†**N. J., Somerville**—STORAGE AREA—U. S. Eng., 120 Wall St., New York 5, N. Y., industrial scrap storage area, to Lipsett Wrecking & Salvage Corp., 235 W. 46 St., New York 19, N. Y., **$43,148.** Bids 12/19. CD 12/15.

R. I., Newport—BATHHOUSES, etc.—City, P. Wks. Dpt., rebuilding bathhouses, pavilion and cabanas, Bailey Beach, to E. W. Howell & Co., 305 Deer Park Ave., Babylon, N. Y. Est. **$150,000.** Noel & Miller, 6 Catherine St., archts.

Texas—OIL PIPELINE—Gulf Refining Co., Gulf Bldg., Houston, 55 mi. 8- to 10-in. crude oil pipeline, Midland area, Midland Co., to Sharman & Allen, Oil & Gas Bldg., Houston, **$175,000.** CD 12/22—ENR 12/28.

Tex., Pampa—GAS PIPELINE CARRIER—Phillips Petroleum Co., Bartlesville, laying 12 mi. 12 in. natural gas line steel pipe carrier, force account. **$58,000.** CD 9/29—ENR 10/5.

†**Wash., Boeing Field (P.O. Seattle)**—AIRFIELD BLDGS.—U. S. Eng., 800 3 Ave., Seattle, Zone 4, 2 field service bldgs. and flight delivery bldg., Neg. 1068, to A. W. Johnson Co., 208 E. Pacific St., Seattle, **$46,573.** Bids 12/18.

★†**W. Va., Wheeling**—AIRPORT GRADING, etc.—Bd. Comrs. Ohio Co., City County Bldg., Wheeling, 200,000 cu. yd. excav., 36,300 ft. pipe drainage, 3,330 sq. yd. concrete, 48,000 sq. yd. flexible and 120,000 sq. yd. concrete paving. Proposal 1-45-425, Ohio County Airport, to Warren Bros. Roads Co., 38 Memorial Dr., Cambridge, Mass, **$644,735.** CAA. Bids 11/9. CD 11/15—ENR 11/23 under LB.

B. C., Prince Rupert—FISHERMEN'S FLOATS, etc.—Secy. Dpt. P. Wks., Ottawa, Ont., constructing fishermen's floats, etc., Fairview Bay, to John Currie & Son, Prince Rupert. **$76,975.** Bids 10/24. CD 10/11—ENR 10/19.

Proposal Advertisements see p. 20

COMMERCIAL BLDGS. (Proposed Work. Cont'd.)

room frame dwellings, concrete fdns., vicinity Scott Field, near here, own forces. $150,000.

O., Cleveland—Christ Evangelical Lutheran Church, Rev. E. Malbow, pastor, 3271 W. 43 St., sketches completed by H. A. Fulton, 6014 Euclid Ave., 3 story, 99x102 ft., brick, steel, concrete school. $175,000.

Pa., Franklin—Kayton Entertainment Co., L. T. Houghton & P. McKay, co-owners, Franklin, plans by V. A. Rigamount, 5471 Coral St., Pittsburgh, 2 story, bsmnt. theatre. $150,000.

Pa., Pittsburgh—St. Canice R. C. Parish, Rev. John A. Fallon, pastor, in charge, 222 Orchard Pl., plans by L. McMullin, 904 Renshaw Bldg., 2 and 4 story, brick parochial school. $150,000.

Man., Winnipeg—Ukrainian Greek Catholic Church, Winnipeg, cathedral. $150,000.

Ont., Fort Williams—Avenue Hotel, Ltd., Victoria Ave., Fort William, hotel. $150,000.

Ont., Ottawa—E. S. Sherwood, 140 Wellington St., plans by W. E. Noffke, 46 Elgin St., office, O'Connor and Queen Sts. $200,000.

★ **Ont., Toronto**—Queen Elizabeth Hospital, Bd. Governors, 120 Dunn Ave., E. W. Bickle, chn., 25 King St. W., plans by E. R. Arthur, 20 Montclair Ave. and Marani & Morris, 46 Bloor St. W., 6 story, bsmnt., rein.-con., brick hospital addn. $600,000.

Que., Montreal—Montreal District Savings Bank, 262 W. St. James St., bank, Belanger and W. Ste. Catherine Sts. $175,000.

Que., Quebec City—Roman Catholic Parish of St. Jean Baptiste, c/o Rev. E. Martel, 448 St. John St., community centre, incl. auditorium, bowling alley, etc. $150,000.

Que., Quebec City—Roman Catholic Parish of St. Sauveur, c/o Rev. A. Menard, 15 Oblate Ave., plans by P. E. Mathieu, c/o owner, community centre, incl. auditorium, bowling alley, etc. $150,000.

BIDS ASKED

Bids Asked After January 1

Tex., Beaumont—W. B. Livesay, archt., San Jacinto Life Bldg. Annex, and Stone & Pitts, archts., Goodhue Bldg., 5 story, 60x112 ft., with two 57x80 ft. wings, brick, concrete office and stores bldg., for H. A. Perlstein, Perlstein Bldg. $225,000. CD 12/19—ENR 12/2.

Bids Asked January 20

Que., Sillery (Postal Dist. Quebec City)—C. A. Jean, archt., 2 Abraham Hill, Quebec City, church and presbytery, for R. C. Parish of St. Charles-Garnier, Sillery. $250,000. CD 11/17—ENR 11/23.

Bids Asked

R. I., Providence—St. Johns Ukranian Church, Public St., 1 story, bsmnt., with 2 wings, brick, stone church. $150,000. Di Mitri & Di Mitri, 187 Farmington Ave., Cranston, archts. CD 12/4—ENR 12/7.

CONTRACTS AWARDED

Ga., Atlanta—Sissons Estate, D. L. Stokes & Co., Volunteer Bldg., fifty 5 room, brick, frame houses, day labor. **$200,000.**

Tex., Houston—Mensco Inc., 4415 N. Roseneath St., 17 brick veneer, sheetrock dwellings, concrete fdns., etc., force account. **$150,000.** J. Knostman, 2017 W. Gray st., archt.

Tex., Laredo—J. R. Newton, Brownwood, 32 dwellings, force account. **$175,000.** E. T. Glasgow, 308 Petroleum Bldg., Fort Worth, archt. **CD 12/19—ENR 12/21.**

INDUSTRIAL BUILDINGS

PROPOSED WORK

Ark., Hazen — SUB-STATION — Arkansas Power & Light Co., Simmons Natl. Bldg., Pine Bluff, electric power sub-station. $75,000.

★ **Calif., South Gate**—FACTORY—General Motors Corp. (Southern California Div.), 704 W. Olympic Blvd., Los Angeles, factory addn. and reconversion existing bldg., rein.-con. and structural steel, 2700 Tweedy Blvd. $650,000. Argonaut Realty Div., 307 General Motors Bldg., Detroit, Mich., archt.

Conn., Fairfield—SHOP and SERVICE GARAGE—Seaboard Freight Lines, Inc., State St. exten., revising plans 1 story, bsmnt. 75x150 ft., concrete, steel shop and service garage. Fletcher Thompson, Inc., 211 State St., Bridgeport, engrs. Bids 12/12 rejected. CD 12/7—ENR 12/14.

Conn., Hartford—WAREHOUSE—Owner, c/o J. Berenson, archt., 48 Forest St., 100x110 ft., brick, steel warehouse. $75,000.

Conn., Norwalk — FACTORY — Norwalk Tire & Rubber Co., Winnipaug, Norwalk, plans completed and bids soon 80x100 ft., rein.-con., brick factory. $60,000. Fletcher Thompson, Inc., 211 State St., Bridgeport, engrs. CD 12/18—ENR 12/21.

Mass., Dorchester (sta. Boston)—PLANT—Boston Ice Co., 268 Heath St., Roxbury, plans by H. L. Feer, 27 School St., Boston, artificial ice mfg. plant. Over $40,000.

★ **Mont., Conrad**—MILL—Ellison Milling & Elevator Co., Layton, Utah, 600 bbl. flour mill. $500,000.

★ **N. H., North Rochester** — PLANT — Spaulding Fibre Co., Inc., North Rochester, rebuilding fibre plant. $750,000. F. L. Smith, 21 E. 40 St., New York, N. Y., engr. CD 11/17—ENR 11/23.

N. Y., Jamestown—PLANT—Fashion Clothes, M. Goldman, mgr., 14 N. Main St., 1 story clothing mfg. plant addn., 42 Taylor St. $40,000 with equip.

★ **O., Cleveland** — SMELTING — Ferro Enamel Corp., R. Weaver, pres., 4150 E. 56 St., smelting bldg. addn. $500,000.

O., Cleveland—PLANT—General Chemical Co., W. H. Winters, mgr. of construction, 40 Rector St., New York, N. Y., and J. McWhister, plant supt., Warner Rd., expanding sulphuric acid plant. $315,000.

Ore., Parkdale—WAREHOUSE, etc.—Duckwall Bros., Inc., Parkdale, plans by Claussen & Claussen, Guardian Bldg., Portland, reconstructing warehouse and packing plant. $43,000.

Tex., Houston—SHOP—G. Reddock, 1817 Forrest Hill St., soon lets contract 1 story, 80x110 ft., steel frame, mechanical shop, concrete fdn. $40,000.

Tex., Mission — PLANT — M. Hutchison, Mission, bids soon 1 and 2 story, frame, sheet metal packing plant, near here.

Tex., Pharr — PACKING PLANT — Texas Products Co., c/o C. Everhard, Pharr, bids soon 1 and 2 story, brick, rein.-con., frame and sheet metal packing plant, rein.-con. fdn. $150,000.

Utah, Nephi—MILL—Bailey-McCune Co., Nephi, plans and specifications by Western Belting & Equip. Co., 2600 S. Santa Fe Ave., Vernon, Calif., feed and processing mill. $50,000.

W. Va., Page—MINING PLANT—Page-Pocohontas Coal Co., Page, rebuilding coal mining plant, facilities. Over $50,000.

Wis., Fond du Lac—FACTORY—Damrow Bros. Co., Western Ave., plans by F. J. Stepnoski & Son, 104 S. Main St., 1 story (ultimately 4 story) 120x200 ft., steel, brick factory.

Wis., Milwaukee—FACTORY, etc.—P & V Atlas Industrial Center, Inc., 647 W. Virginia St., plans by F. F. Drolshagen, E. 47 W. Virginia St., Zone 4, 2 story, irregular sized, steel, brick, hollow tile factory and warehouse addn. Inland Sugar Co., 730 W. Oregon St., lessee.

Wis., Milwaukee—FREIGHT TERMINAL—Steffke Freight Co., 710 W. Virginia St., plans by H. I. Messmer, 231 W. Wisconsin Ave., Zone 3, 1 story, 104x150 ft., concrete block freight terminal, concrete fdn.

Ont., Augusta—PLANT—Maitland Development Co. Ltd., Augusta, plant for production sensitized paper by impregnation, mfg. fishing hooks, etc.

Ont., Bradford—PLANT—Bradford Co-operative Storage Co., Bradford, co-operative storage plant. $100,000.

Ont., Cobourg—SAWMILL, etc.—Cobourg Lumber Co., Inc., Cobourg, sawmill, etc. $40,000.

Que., Beauport—FACTORY—Meubles Grenier Furniture Inc., Beauport, furniture mfg. plant. $40,000.

Que., Bourlamaque—SHAFT SINKING, etc.—New Bidlamaque Gold Mines Ltd., Bourlamaque, shaft sinking, etc. $105,000.

Que., Chicoutimi — PLANT — Gagnon & Frere Meubles Ltd., Chicoutimi, furniture, household adornments, etc. mfg. plant. $40,000.

★ **Que., Joliette**—FACTORY—Fry-Cadbury, Ltd., 2025 Masson St., Montreal, factory. $1,000,000.

Que., Montreal—PLANT—Acme Electric & Mfg. Co. of Canada, Ltd., c/o Roger Lacoste, K.C., 221 W. St. James St., plant. $50,000.

Que., Montreal—FACTORY—Auto Fabric Products Co. Ltd., 1598 Clark St., plans by architect, c/o T. F. Rose, 1598 Clark St., factory. $40,000.

Que., Montreal—PLANT—Dryden Paper Co. Ltd., Canada Cement Bldg., completing plant modernization program. $178,000.

Que., Montreal—FACTORY—Fashions Preferred Ltd., c/o J. Liebman, 423 Mayor St., factory. $40,000.

Que., Montreal—FACTORY—General Footware Co. Ltd., c/o J. Helae, 159 W. Craig St., factory. $40,000.

Que., Montreal—PLANT—L-F Automotive Inc., c/o J. Trudel, K.C., 152 E. Notre Dame St., trucks, taxis, etc. mfg. plant. $40,000.

Que., Montreal—PLANT—Maisoneuve Shoe Supply Co. Ltd., c/o G. H. Semple, 204 W. Notre Dame St., shoe supplies and shoe findings mfg. plant. $50,000.

Que., St. Hyacinthe—MACHINE SHOP, etc.—St. Armand Machine Shop Co., Ltd., 780 des Cascades St., machine shop and factory. $40,000.

Que., Valleyfield — PLANT — Merck & Co., Ltd., R. I. Hendershott, pres., 560 de Courcelbes St., Montreal, chemical mfg. plant at Grande Ile, near here. $200,000.

Sask., Swift Current—PLANT—Horse Co-Operative Marketing Assn., Swift Current, horse processing plant. $150,000.

BIDS ASKED

B. C., Cloverdale—MILL, etc.—McCarter & Nairne, archts., Marine Bldg., Vancouver, 6 story feed mill, 3 story warehouse, and elevator, for Surrey Co-Operative Assn., Cloverdale. $175,000. CD 8/15—ENR 8/17.

LOW BIDDERS

Tex., Houston—FREIGHT DEPOT—International & Great Northern Railroad Co., C. S. Kirkpatrick, ch. engr., Union Station, Dec. 16, freight depot, from Schneider Constr. Co., 3004 W. Dallas St., **$109,000.** CD 12/15—ENR 12/21.

CONTRACTS AWARDED

Calif., El Segundo—REFINERY—Standard Oil Co. of Calif., El Segundo Plant, El Segundo, 1 story, 75 x 154 ft. with 43 x 44 ft. ell cafeteria bldg., to [illegible]

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INDUSTRIAL BLDGS. (Contracts Awarded, Cont'd.)

Pa., Port Allegany — FACTORY — Pierce Glass Co., Howard Herger, pres., rebuilding 1 story, 50x200 ft., and repairing 2 story, bsmnt., 60x124 ft. glass factory, to Frazier Simplex, Inc., 436 E. Beau St., Washington. Est. **$40,000.**

R. I., Bristol—FACTORY—Bristol Mfg. Corp., Buttonwood Ave., 1 story, 86x97 ft., brick factory addn., to J. P. Flynn, 112 Lenox Ave., Providence. Est. **$40,000.** L. A. Gardiner, 49 Hanover St., Providence, archt.

Tex., Dallas—SHOP—L. R. Kopahl, 6102 Revera Dr., brick, tile, concrete shop, to T. L. Lawhorn, 715 Clermont St., approx. **$41,000.** Est. $45,000. CD 12/19—ENR 12/21.

Tex., Dallas—WAREHOUSE—Gus B. Volkus, 1814 Allen Bldg., warehouse, to F. McClure, 808 Good St., approx. **$40,000.** CD 12/19—ENR 12/21.

Tex., Dallas—WAREHOUSE—W. B. Williams, 2210 Lamesa St., 1 story, 125x266 ft., brick, concrete warehouse, to E. V. McCright & Co., 2210 Lamesa St. **$55,000.**

Tex., Harlingen—PLANT—A. W. Lyons Poultry & Egg Produce Co., 1 story produce plant, day labor. **$40,000.** CD 12/12—ENR 12/14.

★**Tex., Houston**—PLANT—Shell Oil Co., Inc., Shell Bldg., fluid catalytic high-octane gasoline refining plant, auxiliary gas plant for recovery hydrocarbons, addnl. water-cooling towers, installing gas lines and oil and by-product lines, addn. water sys. at refinery plant, all at Deer Park, to Foster Wheeler Corp., Shell Bldg., Houston, C. F. Braun & Co., 1000 S. Fremont Ave., Alhambra, Calif., and Fluor Corp. Ltd., 2500 Atlantic Blvd., Los Angeles, Calif., **$11,285,000.** CD 12/19—ENR 12/21.

Tex., La Feria—PLANT—Inter-State Fruit & Vegetable Co., La Feria, citrus and fruits packing plant unit, force account. **$43,000.** CD 12/12—ENR 12/14.

Tex., McAllen—PROCESSING PLANT—L. H. Moore Canning Co., McAllen, 1 and 2 story, brick, tile, concrete processing plant, day labor. **$44,000.** CD 8/13/43—ENR 8/19/43.

Tex., McAllen—PLANT—Reagan Canning Co., 17 N. 22 St., 1 and 2 story citrus and vegetable processing plant, day labor. **$40,000.** CD 11/8—ENR 11/11.

Tex., San Juan—SHOP, etc.—Wax-Pax Co., N. Shary Rd., Mission, 2 story, stucco, concrete shop and storage bldg., to J. C. Doedyns, San Juan, **$40,000.** CD 12/19—ENR 12/21.

Tex., Weslaco—PLANT—Gulf Fruit & Vegetable Co., Weslaco, 1 and 2 story, brick, rein.-con., metal processing plant, day labor. **$40,000.** CD 12/20—ENR 12/28.

Tex., Weslaco—PLANT—Rio Texas Products Co., Weslaco, 1 and 2 story citrus and vegetable packing plant unit, day labor. [illegible] CD 12/28.

Tex., Weslaco—PLANT—Verhalen, Inc.,

Ave., Los Angeles, installing 14,000 ton 'dry dock between berths 136 and 137 A. Over $500,000.

†Ga., Rome—AIRPORT IMPROVEMENTS—Civil Aeronautics Admin., 84 Marietta St. N.W., Atlanta, indefinitely postponed bids to have been opened Dec. 15, constructing addnl. drainage, installing subdrains, fertilizing, liming and seeding, fencing and lighting airport, Code 9-09-040. CD 12/5—ENR 12/7.

La., Kenner—ELECTRIC SUPPLY LINES—City of New Orleans, City Hall, New Orleans, electric supply lines, other utilities, Moisant Airport. Moise H. Goldstein & Associates, American Bank Bldg., New Orleans, and H. Benson, Canal Bank Bldg., New Orleans, archts.

★**Missouri** and **Oklahoma** — RAILROAD TRACK, etc.—St. Louis-San Francisco Ry. Co., F. G. Jonah, ch. engr., 906 Olive St., St. Louis 1, Mo., 3 mi. track near Hancock, Mo., removing steep grades, laying 69 mi. new rail, track repairs, etc. along system, est. $3,310,936; also installing 126 mi. automatic block signals in Oklahoma.

★**Missouri** — RAILROAD SYSTEM IMPROVEMENTS—St. Louis-San Francisco Ry. Co., F. G. Jonah, ch. engr., 906 Olive St., St. Louis, Zone 1, railroad sys. addns., imprvs. incl. installing heavier rails at some points, new bridges, overhauling some rolling stock, etc. $2,911,907.

★**Nebraska** — TRANSMISSION LINES — Custer Public Power Dist., Broken Bow, 1,100 mi. transmission lines, Custer Co. $1,000,000.

N. C., Charlotte—RADIO STATION—W S O C Inc., E. Gluck, pres., 1925 N. Tryon St., radio station expansion, changing frequency from 1,240 to 1,550 kilocycles and power from 250 watt to 100 kilowatts new transmitter and directional antenna.

Ore., Portland—CRYPT CORRIDOR, etc.—Lincoln Memorial Park Co., 10500 S. E. Mt. Scott Blvd., plans by J. W. Heller, 323 S. W. 5 Ave., crypt corridor and center sect. at mausoleum. $74,000.

Pa., Pittsburgh — TRANSMITTING STATION, etc.—W W S W Inc., F. R. Smith, pres., Hotel Keystone, transmitter bldg. and unit antennas, Rising Main St., Pittsburgh, and 500 watt transmitting station, Stowe Twp. $100,000.

†Texas—AIRFIELD BLDG. CONVERSION—U. S. Eng., Fort Sam Houston, bids soon Serial No. W-41-154-45-68, converting 2 bomb trainer bldgs. at Midland, Big Springs and San Angelo, incl. remodeling, converting 2 OBH-2 hangar bldgs. at each of above posts, installing partitions, and ceiling to form 2 dark rooms, inside each hangar, etc.

Texas—POWER TRANSMISSION LINES—Choctaw Electric Cooperative, Hugo, rural electric power transmission lines, Choctaw Co. $100,000.

Tex., McAllen—BOY SCOUT CAMP—Rio Grande Valley Boy Scout Council, c/o C.
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CILITIES—
$100,000.
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OOL, etc.—
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K—Munici-
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SYSTEM—
ks, Arsenal
Ave., New

York, Zone 21, altering sprinkler sys. in American Museum of Natural History, Manhattan Sq. Park, Contr. M-53-644.

Bids Asked January 11

†S. C., Charleston—SIGNAL AND ALARM SYSTEM—U. S. Eng., Post Office Bldg., Savannah, Ga., furnishing, installing nurse's signaling and alarm sys. at Stark General Hospital, STAR 8-45.

Bids Asked January 15

B. C., Esquimalt—DOCKYARD IMPROVEMENTS—Secy. Dpt. Munitions & Supply, Ottawa, Ont., dock imprvs., incl. Rectifier Bldg. 172, refitting and dockyard jetties wharf services, for Dpt. Natl. Defense (Sea), Ottawa, Ont. Est. about $40,000.

LOW BIDDERS

†Ariz., Flagstaff—SPRINKLER SYSTEM, etc.—U. S. Eng., 751 Figueroa St., Los Angeles 14, Calif., Dec. 20, sprinkler sys. and firewalls at Navajo Ordnance Depot, No. 50, from George E. Kerns, 5574 Atlantic Blvd., Long Beach, Calif., **$335,588.**

†Calif., Stockton—LOADING RAMPS—U. S. Eng., 1209 8 St., Sacramento, Zone 8, Dec. 20, loading ramps, addnl. railroad spur at Stockton Ordnance Depot, Spec. 1020, from C. E. Kennedy, 305 E. Weber St., **$25,709.**

†Me., Presque Isle—HANGARS—U. S. Eng., 31 St. James Ave., Boston, Mass., Dec. 22, 2 hangars at airport, Spec. 19-023-45-NEG 67, from T. W. Cunningham, Inc., 84 Harlow St., Bangor, **$42,700.**

CONTRACTS AWARDED

†Del., Fort Miles (P. O. Lewes)—WHARF—U. S. Eng., 120 Wall St., New York 5, N. Y., repairing wharf, to George & Lynch, Delaware Trust Bldg., Wilmington, **$32,405.** Bids 12/14.

†Fla., Pensacola—AIR STATION BLDG.—Yards & Docks, Navy Dpt. 18 St. and Constitution Ave. N.W., Wash. 25, D. C., exten. plane and engine overhaul shop, Naval Air Station, NOY 11034, to Foster & Creighton Co., American Natl. Bank Bldg., Nashville 3, Tenn. **$63,600.**

Kan., Kansas City—PARKING LOTS, etc.—City, H. Payne, clk., imprv. 3 parking lots, incl. grading, curbing, retaining walls, steps, sidewalks, paving, traffic markers, drainage, flood lighting, to J. A. Tobin Const. Co., 3700 Rainbow Blvd., **$69,973.** Bids 12/7. T. Schlup, city engr.

†Md., White Oak—FENCE—Yards & Docks, Navy Dpt. 18 St. and Constitution Ave. N.W., Wash. 25, D. C., fence, Naval Ordnance Laboratory, NOY 11336, to T. Calvin Owens, 412 Albee Bldg., Wash., D. C., **$81,720.**

Missouri—TRANSMISSION LINES—Nodaway-Worth Electric Co-op., Maryville, 103 mi. transmission lines, Nodaway Co., to A A Electric Co., Cicero, Ill., **$94,000.** CD 9/11—ENR 9/14.

†Nev., Lovelock—FACILITIES—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., developing facilities, NOY 11389, to Dinwiddie Constr. Co., 210 Crocker Bldg., San Francisco, Calif., **$74,600.** Bids 12/15.

†N. J., Somerville—STORAGE AREA—U. S. Eng., 120 Wall St., New York 5, N. Y., industrial scrap storage area, to Lipsett Wrecking & Salvage Corp., 235 W. 46 St., New York 19, N. Y., **$43,148.** Bids 12/19. CD 12/15.

R. I., Newport—BATHHOUSES, etc.—City, P. Wks. Dpt., rebuilding bathhouses, pavilion and cabanas, Bailey Beach, to E. W. Howell & Co., 305 Deer Park Ave., Babylon, N. Y. Est. **$150,000.** Noel & Miller, 6 Catherine St., archts.

Texas—OIL PIPELINE—Gulf Refining Co., Gulf Bldg., Houston, 55 mi. 8- to 10-in. crude oil pipeline, Midland area, Midland Co., to Sharman & Allen, Oil & Gas Bldg., Houston, **$175,000.** CD 12/22—ENR 12/28.

Tex., Pampa—GAS PIPELINE CARRIER—Phillips Petroleum Co., Bartlesville, laying 12 mi. 12 in. natural gas line steel pipe carrier, force account. **$58,000.** CD 9/29—ENR 10/5.

†Wash., Boeing Field (P.O. Seattle)—AIRFIELD BLDGS.—U. S. Eng., 800 3 Ave., Seattle, Zone 4, 2 field service bldgs. and flight delivery bldg., Neg. 1068, to A. W. Johnson Co., 208 E. Pacific St., Seattle, **$46,573.** Bids 12/18.

★**†W. Va., Wheeling**—AIRPORT GRADING, etc.—Bd. Comrs. Ohio Co., City County Bldg., Wheeling, 200,000 cu. yd. excav., 36,300 ft. pipe drainage, 3,330 sq. yd. concrete, 48,000 sq. yd. flexible and 120,000 sq. yd. concrete paving. Proposal 1-45-425, Ohio County Airport, to Warren Bros. Roads Co., 38 Memorial Dr., Cambridge, Mass, **$644,735.** CAA. Bids 11/9. CD 11/15—ENR 11/23 under LB.

B. C., Prince Rupert—FISHERMEN'S FLOATS, etc.—Secy. Dpt. P. Wks., Ottawa, Ont., constructing fishermen's floats, etc., Fairview Bay, to John Currie & Son, Prince Rupert. **$76,975.** Bids 10/24. CD 10/11—ENR 10/19.

Proposal Advertisements see p. 20

OFFICIAL PROPOSALS

Bids: Jan. 12 (340)

Water Main

WASHINGTON SUBURBAN SANITARY COMMISSION
CONTRACT NO. 178-W
WATERMAIN CONSTRUCTION

Sealed proposals for constructing approximately 1,085 feet of 6-inch, 1,830 feet of 8-inch and 3,145 feet of 10-inch cast iron water mains, on Contract No. 178-W, will be received at the office of the Washington Suburban Sanitary Commission, Hamilton Street, Hyattsville, Maryland, until 3:00 P. M., Eastern War Time, Friday, January 12, 1945, at which place and time they will be publicly opened and read.

Plans and specifications may be obtained from Harry R. Hall, Chief Engineer of the Commission, Hyattsville, Maryland, upon deposit of $5.00, which deposit will be returned to bidders, or to those returning plans and specifications in good condition.

Perry Boswell
J. Donald Clagett
Frank B. Smith
Commissioners

Bids: Jan. 16 (339)

Improvements to Sewage Treatment Works

ALTERATIONS AND IMPROVEMENTS
TO THE
SLUDGE PROCESS AND FILTER
BUILDING
AT THE
SEWAGE TREATMENT WORKS
FREEPORT, NEW YORK

Sealed proposals for furnishing all material and labor and doing all work for the construction of Alterations and Improvements to the Sludge Process and Filter Building at the Sewage Treatment Works, Village of Freeport, New York, will be received by the Board of Sewer Commissioners of the Village of Freeport at the Municipal Building, 46 North Ocean Avenue, Freeport, N. Y., until 8:00 P. M. Eastern War Time, on the 16th day of January, 1945, at which time and place they will be publicly opened and read.

The Information for Bidders, Form of Bid, Form of Contract including General Conditions, the Specifications, the Plans, the forms of Performance and other surety bonds may be examined at the office of the Village Clerk, Municipal Building, Freeport, N. Y., or at the office of Baldwin & Cornelius Co. Inc., Village Engineers, Freeport, N. Y., and copies thereof may be obtained upon deposit of Fifteen Dollars ($15.00) for each set, to be refunded to bidders upon return of the Plans and Documents in good condition within thirty (30) days after the opening of bids. Such deposit will not be refunded to anyone who takes out such Documents and does not bid on the work.

The Board of Sewer Commissioners reserves the right to waive any informalities in or to reject any or all bids.

Each bidder must deposit with his bid security in an amount of not less than five per centum (5%) of the base bid in the form and subject to the conditions provided in the Information for Bidders.

The successful bidder will be required to furnish a performance bond and Labor and Material Bond in such form and having as surety thereon such surety company or companies as are approved by the Board of Sewer Commissioners, each in the amount of not less than 100% of the total amount of the accepted bids.

No bidder may withdraw his bid within 45 days after the date set for the opening thereof.

Dated: January 4, 1945.

LEO FISHEL, Chairman
Michael J. Coffey,
Frank Holland,
BOARD OF SEWER COMMISSIONERS
OF THE VILLAGE OF
FREEPORT, N. Y.
Howard E. Pearsall, Village Clerk

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RATE: 10 CENTS A WORD, MINIMUM CHARGE $2.0

Positions Wanted (full or part time individual salaried employment only), ½ the above rates, payable in advance.

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POSITIONS VACANT

ARCHITECTURAL DRAFTSMAN experienced in quantity take-offs and architectural rendering. If possible send photostat of sample rendering. We will not be responsible for returning same. This is a real opportunity with a young aggressive firm doing an outstanding job in the construction industry. Thomas Bryan & Associates, P. O. Box 46, Lafayette, Louisiana.

WANTED ONE engineer and one engineering draftsman for detail design on water, sewage and industrial waste treatment plants. Reply, stating experience. Gannett Flaming Corddry & Carpenter, Inc., Box 366, Harrisburg, Penn.

ENGINEER, thoroughly experienced in water works and sewage treatment design, good draftsman, for permanent position in consultants office. Give outline of experience, personal data, availability, approximate salary requirement and list of references in first letter. P-891, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

STRUCTURAL DESIGNERS and draftsmen, Charles S. Whitney Consulting Engineer, 724 E. Mason St., Milwaukee 2, Wis.

STRUCTURAL STEEL estimator and designer wanted by structural steel fabricator located in central west. Permanent position with a leading concern with retirement pension plan in operation. State qualifications, past experience and salary expected. Will consider young engineer with structural experience who can be trained. P-892, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

WANTED ARCHITECTURAL engineering draftsman for layout and detail of structural, plumbing, heating and wiring for consulting office in the South. An older man who wants a permanent job and opportunity. State full details and salary. P-906, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

WANTED EXPERIENCED assistant civil engineer. Permanent position under pension system apply to City Clerk, Royal Oak, Michigan.

MEXICAN ENGINEERING Concern desirous of contracting general contractors in the United States who are interested in securing work in Mexico. D.F. Present jobs consist of excavation; canal construction; sewer, water, gas main installation. If interested please reply giving a general outline of previous experience, assets, equipment available, etc. P-827, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

HYDRAULIC ENGINEER — Unusual opportunity for capable man thoroughly versed in hydro-electric design and installations. P-909, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CIVIL ENGINEER thoroughly experienced in design of water supply and sewage treatment projects for positions offering permanent connection with established consulting firm. Also have openings for men with general civil, mechanical, or electrical engineering background who are interested in the sanitary engineering field. Jones & Henry, Toledo Trust Bldg., Toledo, Ohio.

STRUCTURAL STEEL estimator — Position with large steel fabricator, present and post-war opportunities. Structural detailers and draftsmen will be considered. P-910, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

TRAFFIC ENGINEER for consultants office engaged on express highway work. Experience with origin and destination studies essential. Give details of training, experience, salary requirements, availability, and willingness to travel. P-911, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

POSITIONS WANTED

BUILDING CONSTRUCTION executive. 25 years experience. Thoroughly understands estimating, sub-letting, purchasing and office work, age 54. Now engaged on project which is substantially completed. Desires position of responsibility, references. PW-914, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

POSITIONS WA

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Record, 520 N. Michigan Av

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Akron, Ohio.

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